



FEDERAL PROJECT MANAGEMENT UNIT
FEDERAL WATER MANAGEMENT CELL
MINISTRY OF NATIONAL
FOOD SECURITY & RESEARCH
ISLAMABAD - PAKISTAN

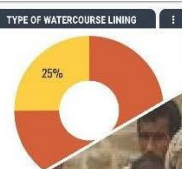
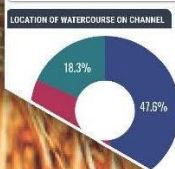
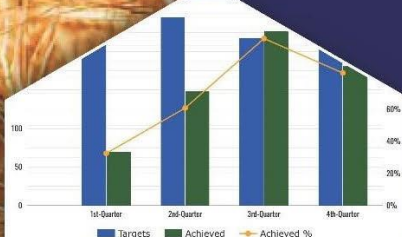
NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN PHASE-II: (NPIWC-II)

MONITORING, EVALUATION
AND IMPACT EVALUATION
CONSULTANTS



MONTHLY MONITORING REPORT

FEBRUARY 2023



A Joint Venture of
G3 Engineering Consultants (Pvt.) Ltd.



EASE-PAK

ADA
Consultants Inc.

In Association with **S&S Associates**



Federal Project Management Unit (FPMU)
Ministry of National Food Security & Research, Islamabad

Monitoring, Evaluation and Impact Evaluation (ME&IE) Consultants

For

National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)

MONTHLY MONITORING REPORT
FEBRUARY 2023

CONTENTS

EXECUTIVE SUMMARY	1
CHAPTER-1: PROJECT INTRODUCTION	3
1.1 PROJECT PROFILE	3
1.2 PROJECT DESCRIPTION	3
1.2.1 Project Development Objectives	3
1.2.2 Project Objectives – General & Quantitative	3
1.2.3 Project Beneficiaries	4
1.2.4 Project Components	4
1.2.5 Project Targets	5
CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS	7
2.1 OBJECTIVES OF CONSULTING SERVICES	7
2.2 SCOPE OF CONSULTING SERVICES	7
2.3 MONITORING STRATEGY OF CONSULTANTS	8
2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS	11
CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH	12
3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR)	12
3.2 SUBMISSION MID-LINE MONITORING & IMPACT EVALUATION REPORT (DRAFT)	12
3.3 REGULAR MONITORING / FIELD VISITS BY ME&IE CONSULTANTS	12
3.4 SUMMARY OF ACTIVITIES ICT ZONE – FEBRUARY 2023	12
3.5 TODATE PROGRESS OF ME&IE CONSULTANTS – ICT	12
3.5.1 Overall Progress:	12
3.6 CAPACITY BUILDING OF ME&IE CONSULTANTS / FIELD TEAM OFFICERS	13
3.6.1 Training Course on: Planning and Management for Development Projects	13
3.6.1.1 Executive Summary	13
3.7 THREE DAYS TRAINING ON: REPORT WRITING OF DEVELOPMENT PROJECTS	19
3.7.1 Agenda:	19
3.7.2 Executive summary:	19
3.7.3 Objective	19
3.7.4 Methodology:	19
3.7.5 Lessons Learned	19
3.7.6 Conclusions	20

3.7.7	Recommendations	20
3.8	KEY CHALLENGES & MITIGATION MEASURES ADOPTED	20
3.8.1	Some Limitations:	20
3.8.2	Suggestions	20
3.9	ACTIVITIES PUNJAB ZONE – FEBRUARY 2023	21
3.9.1	Pre-Field Activities	21
3.9.2	Field Activities	21
3.9.3	Coordination / Meeting of ME&IE Consultants with Stakeholders / OFWM Officers	21
3.9.4	On Farm Water Management Training Institute	24
3.9.5	Provision of Laser Land Leveling	25
3.10	ACTIVITIES of KP ZONE – FEBRUARY 2023	26
3.10.1	Quarterly Work Plan – KP Zone	28
3.11	ACTIVITIES BALOCHISTAN ZONE – FEBRUARY 2023	28
3.11.1	UPDATED PROGRESS OF ME&IE CONSULTANTS – BALOCHISTAN	28
3.11.2	VISIT OF 03 DIVISIONS TO COLLECT THE DASHBOARD DATA – BALOCHISTAN	29
3.11.3	CORRESPONDENCE WITH DG, OFWM, BALOCHISTAN REGARDING DATA FEEDING / VALIDATION, DASHBOARD BALOCHISTAN	31
3.11.4	UPDATED STATUS - VALIDATED DATA OF WATERCOURSES, BALOCHISTAN FOR 03 FINANCIAL YEARS, 2019-20, 2020-21, AND 2021-22.	31
3.11.5	UPDATED STATUS - VALIDATED DATA OF WATER STORAGE TANKS, BALOCHISTAN OF 03 FINANCIAL YEARS, 2019-20, 2020-21 AND 2021-22.	34
3.12	ICT ASSIGNMENT	36
3.12.1	Development of Customized Android Based Applications	36
3.12.2	Data collection of interventions in MIS/GIS database	36
3.12.3	Implementation of MIS Dashboard	36
	CHAPTER 4: QUARTERLY WORK PLAN-ACTIVITIES (OCTOBER 2022 TO DECEMBER 2022)	39
	CHAPTER 5: ISSUES / BOTTLENECKS	41

LIST OF TABLES

Table ES-1: Compliance Status of Tentative Work Plan during Reporting Period	2
Table 3.4: Summary of Data collected and reported of various Interventions till Midterm	21
Table 3.5: Numbers of Laser Land Leveler Operators Received training under NPIWC-II.....	25

LIST OF FIGURES

Figure 1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan	5
Figure 1 2: Zone-Wise WCs Improvement, WSTs, and LLL Target	6
Figure 3.3: Lecture proceedings by Prof Usman Mustafa.....	17
Figure 3.4: Training session in progress at NCRD	18
Figure 3.5: FTI, ICT-Zone awarded by certificate from NCRD	18
Figure 3.6: S&G Specialist awarded by certificate from NCRD	18
Figure 3.7: Group photograph of training at NCRD	18
Figure 3.8: Training session at NCRD	20
Figure 3.9: Training session at NCRD	20
Figure 3.10: Training session at NCRD	20
Figure 3.11 View of Meeting held in Directorate General (Agri) OFWM Office	23
Figure 3.12 ME&IE Consultants meeting with Director OFWM, Lahore Division Dr. Ahmed Bilal	23
Figure 3.13 The Consults Team participating in the discussion regarding the role of the institute in projectl.....	24

LIST OF ANNEXURES

ANNEX - A: TENTATIVE QUARTERLY WORK PLAN (OCTOBER TO DECEMBER 2022)	44
ANNEX - B: MATRIX OF RESPONSIBILITIES	50
ANNEX - C: MONITORING LOG-FRAME	52
ANNEX - D: DELIVERABLES/REPORTING REQUIREMENTS	57
ANNEX - E: CORRESPONDENCE REGARDING DASHBOARD ACTIVITIES IN BALOCHISTAN	58
ANNEX - F: DISTRICT WISE UNIT OF INTERVENTIONS DATA COLLECTED AND REPORTED TILL REPORTING MONTH	60
ANNEX - G: AJK WATERCOURSES DATA SUBMISSIONS	61
ANNEX - H: AJK WST/WHs DATA SUBMISSIONS	62
ANNEX - I: KP - WATERCOURSE DATA SUBMISSION - SUMMARY	63
ANNEX - J: KP - WST DATA SUBMISSION - SUMMARY	64
ANNEX - K: BALOCHISTAN - WATERCOURSE DATA SUBMISSION - SUMMARY	65
ANNEX - L: BALOCHISTAN - WST DATA SUBMISSION - SUMMARY	66
ANNEX - M: PUNJAB - WATERCOURSE DATA SUBMISSION - SUMMARY	67
ANNEX - N: PUNJAB – WATER STORAGE POND DATA SUBMISSION – SUMMARY	68
ANNEX - O: GB – WATERCOURSE DATA SUBMISSION – SUMMARY	69
ANNEX - P: GB – WATER STORAGE POND DATA SUBMISSION – SUMMARY	70

ACRONYMS

ADA	Assistant Director Agriculture
AES	Agriculture Extension Services
AF	Acre-Feet
AJK	Azad Jammu & Kashmir
AOSM	Adjustable Orifice Semi-Module
AWPB	Annual Work Plan and Budget
AWPs	Annual Work Plans
BCR	Benefit Cost Ratio
CFT	Cubic Feet
CMS	Content Management System
CSRD	Center for Social Research and Development
DAES	Director Agriculture Extension Services
DDA	Deputy Director Agriculture
DGA	Director General Agriculture
DTL	Deputy Team Leader
EAs	Executing Agencies
EIRR	Economic Internal Rate of Return
FCR	Financial Completion Report
FCRs	Final Completion Reports
FMFSR	Framework for Federal Financial Management System
FOs	Farmers Organizations
FPMU	Federal Project Management Unit
FTI	Field Team Incharge
FWMC	Federal Water Management Cell
GAP	Gender Action Plan
GB	Gilgit Baltistan
G3EC	G3 Engineering Consultants
GIS	Geographic Information System
HEIS	High Efficiency Irrigation System
IAs	Implementing Agencies
ICR	Interim Completion Report
ICT	Islamabad Capital Territory
IRR	Internal Rate of Return
ICT	Information & Communication Technology
JV	Joint Venture
KP	Khyber Pakhtunkhwa
LLL	Laser Land Leveler
LPS	Liter per Second
M&E	Monitoring and Evaluation
MAF	Million Acre Feet
ME&IE	Monitoring Evaluation and Impact Evaluation
MIS	Management Information System
MNFSR	Ministry of National Food Security and Research
MMR	Monthly Monitoring Report
MT	Monitoring Template
MTE	Mid-Term Evaluation

NESPAK	National Engineering Services Pakistan
NPC	National Project Coordinator
NPIWC	National Program for Improvement of Watercourses
NPV	Net Present Value
NWMC	National Water Management Consultants
ODK	Open Data Kit
OFWM	On-Farm Water Management
PC-1	Planning Commission-(Form-One)
PDO	Project Development Objectives
PIC	Project Implementation Committee
PIES	Project Impact Evaluation Study
PQC	Pre-Qualification Committee
QM&ER	Quarterly Monitoring and Evaluation Report
RBM	Results-Based Management
RFT	Running Feet
RWD	Responsive Web Design
SFT	Square Feet
SOPs	Standardized Operating Procedures
SPSS	Statistical Package for Social Sciences (Software)
SSCs	Supply and Service Companies
TABs	Tablets
TL	Team Leader
TOR	Terms of Reference
TPV	Third Party Validation
TWRD	Tail-Water Recovery Ditch
WG	Women Group
WST	Water Storage Tank
WUAs	Water Users Associations

EXECUTIVE SUMMARY

The “Monitoring Report for the month of February 2023” comprises of five chapters:

Chapter-1 describes the detailed introduction and description of the project. The Government of Pakistan is implementing a project entitled “National Program for Improvement of Watercourses in Pakistan Phase-II” (NPIWC-II) at a total cost of PKR 154,542.355 million (Umbrella PC-I including Sindh) over a period of 05 years. This project will cover Punjab, Khyber Pakhtunkhwa (KP), Baluchistan and Gilgit Baltistan (GB), Azad Jammu & Kashmir (AJ&K) as well as Islamabad Capital Territory (ICT). The present project is beneficial for the country.

The NPIWC-II comprises four components to be implemented in Punjab, KP, Baluchistan, GB, AJ&K, and ICT:

- i) C1: Organization of Water Users Associations
- ii) C2: Watercourse Improvements: 47,278 Nos.
- iii) C3: Construction of Water Storage Tanks: 14,932 Nos.
- iv) C4: Provision of Laser Land Leveling Units: 11,610 Nos.

Chapter-2 elaborates the objectives and scope of work of the ME&IE Consultants for the project. Since the ME&IE Consultants are going to monitor implementation of all criteria set, procedures defined, and timeline agreed for implementation of various components. All these are reproduced in this report as ready reference to devise / design M&E strategy, methodology, procedures for monitoring and impact assessments of the project interventions.

The monitoring strategy followed by ME&IE Consultants is briefly described in Table-2.1. The strategy has been finalized and implemented in close coordination with the client and active participation of the beneficiaries as well as the project stakeholders.

Chapter-3 explains purpose of Monthly Monitoring Report (MMR). This current MMR covers the period from 1st February 2023 to 28th February 2023.

This chapter also covers the activities of ME&IE Consultants, carried out during the reporting period which are summarized below:

- Regular Monitoring of Interventions in the Field
- Baseline and Impact survey field data collection
- Regular Monitoring of Interventions in the Field
- Meetings of ME&IE Consultants with Stakeholders about Project Progress / Issues
- Monitoring online data collection and Data entry
- Monitoring Android based Mobile Application under implementation by field staff.
- Data collection of interventions in MIS/GIS database
- Data entry, cleaning, validation and reporting
- Mid-Line Monitoring & Impact Evaluation Report (Draft)
- Submission of MMR for the previous Month (January 2023)

Chapter-4 highlights the quarterly work plan for the period of January 2023, to March 2023. The work plan consisting of following activities:

- Pre-field Activities
- Field Activities
- ICT Assignment
- Coordination Meetings
- Deliverables

The detail time span for 3rd Quarter of year 2022-23 is provided in the Tentative Work Plan **Annex-A**.

Chapter-5: Issues / problems faced by the consultants during the reporting period of the assignment are described in this Chapter.

Table ES-1: Compliance Status of Tentative Work Plan during Reporting Period

No.	Activities Planned for the Reporting Quarter		Status	
1	Pre-Field Activities			
	1.1	Preparation for 3rd-Phase Baseline Survey (Finalization of MTs)	Will be initiated in March 2023	
	1.2	Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey	Will be initiated in March 2023	
	1.3	Training of Field Staff for 3rd-Phase Baseline Survey	Will be initiated in March 2023	
2	Field Activities:			
	2.1	Regular Monitoring of Interventions in the Field	Complied	
	2.2	Data collection of the interventions in the field for Baseline & Impact survey	Complied	
	2.3	Baseline Survey Phase-II	Complied	
	2.4	Online data entry in android-based application	Complied	
3	ICT Assignment:			
	3.1	Development / Improvement of website of NPIWC-II	Complied	
	3.2	Monitoring online data collection and Data entry	Complied	
	3.3	Monitoring Android based Mobile Application under implementation by field staff.	Complied	
	3.4	Data collection of interventions in MIS/GIS database	Complied	
	3.5	Capacity Building Trainings / Refresher of Departments	Complied	
	3.6	Data Cleaning. Development & Launching of Dashboard for Client Offices	Complied	
4	Coordination			
	4.1	Meetings of TL, ME&IE Consultants with NPC regarding Project Progress / Issues	Meetings conducted on regular basis	
	4.2	Meeting of DTLs with respective DTL of NWMC	Meetings conducted on regular basis	
	4.3	Internal Meetings of ME&IE Consultants	Weekly meetings conducted on regular basis	
5	Deliverables:			
5.1	Monthly Monitoring Reports (MMRs)	24 th MMR (Dec. 2022)	Submitted	
		25 th MMR (Jan. 2023)	Submitted	
		25 th MMR (Feb. 2023)	Under consideration	
5.2	Quarterly Monitoring & Evaluation Report (QM&ER)	QM&ER Oct-Dec 2022	Submitted	
		QM&ER Jan-Mar 2023	To be submitted in stipulated time	
5.3	Mid-Line Monitoring & Impact Evaluation Report	Submitted		
	Baseline Survey Report Phase-II (Updated version WC)	Submitted		
5.4	Baseline Survey Report Phase-II (Draft version of WSTs)	Submitted		

CHAPTER-1: PROJECT INTRODUCTION

1.1 PROJECT PROFILE

This section covers the following detail of the project:

Project Name: National Program for Improvement of Watercourses in Pakistan Phase-II (NPIWC-II)

Project Areas: Punjab, Khyber Pakhtunkhwa, Baluchistan, Gilgit Baltistan, Azad Jammu & Kashmir, and Islamabad Capital Territory (ICT)

Sponsoring Agency Ministry of National Food Security & Research
Executing Agencies (EAs): Following are different EAs: Federal Project Management Unit (FPMU),

- i. DGA OFWM Punjab
- ii. DG OFWM KP
- iii. DGA OFWM Baluchistan
- iv. Director Irrigation and Small Dams, AJ&K
- v. Director WM, GB
- vi. Director Agriculture Extension Services (AES) ICT

Project Period: 5 Year (2019-2024)

Total Project Cost: Rs. 154,542.355 million (Umbrella PC-1, including Sindh)

ME&IE Consultancy Period: 4 years

ME&IE Consultant: JV of G3 Engineering Consultants (Pvt.) Ltd., EASE PAK Engineering services (Pvt.) Ltd., Centre for Social Research and Development (CSR), ADA Consultants Inc. Canada, and S&S Associates.

ME&IE Consultant Mobilized: November 20, 2020

1.2 PROJECT DESCRIPTION

Project description includes the project development objectives, project objectives, project benefits, project components, etc.

1.2.1 Project Development Objectives

The Project Development Objectives (PDOs) are to improve irrigation water management at tertiary and field levels in Pakistan.

1.2.2 Project Objectives – General & Quantitative

Following is the project general and quantitative:

1) General Objectives:

The Project aims to replicate the success achieved during the NPIWC Phase-I and further improve the findings of the Project Impact Evaluation Study (PIES). The broad objectives of the project are as under:

- i) Social mobilization through capacity building of WUAs/ FOs,
- ii) Minimization of conveyance and field application losses,
- iii) Reduction in Water Logging and salinity,
- iv) Equity in water distribution,
- v) Reduction in water disputes/thefts/litigation,
- vi) Motivation/participation of farmers,
- vii) Poverty reduction through employment generation, and
- viii) Increase in crops yield/self-sufficiency in food.

2) Quantitative Objectives' Outputs and Impacts:

The quantitative objectives' outputs and impacts of the Project are as under:

Project outputs

- i) Mobilization through capacity building of Water Users Associations/Farmers Organizations in improved water management techniques and their registration under On-Farm Water Management and Water User

- Associations Ordinance [Act] 1981 and organization of 47,278 WUAs.
- ii) Reconstruction/renovation and remodeling of 47,278 watercourses, involving complete earthen renovation, partial lining of critical reaches (50% of the total watercourse length as decided in the high-level meeting), and installation of water control structures. It is expected to save around 5.82 MAF per annum (approx. saving of 123 acre-feet (AF) per watercourse per annum).
- iii) Construction of 14,932 water storage tanks with 60% subsidy through cost sharing arrangements with the expectation to save about 50% irrigation water for wheat and about 68% of irrigation water for paddy crops.

Project impacts

- iv) Reduction in Water Logging and salinity in project areas to the extent of 10%.
- v) Cropping intensity is expected to increase by 5-20%.
- vi) Crop's yield is estimated to increase by 10-15%.
- vii) Equity in water distribution increased by about 30%.
- viii) Reduction in water disputes/thefts and litigation amongst the Farmers over water distribution by about 80%.
- ix) Help poverty reduction through generation of employment.
- x) Self-sufficiency in food through utilization of water saved including edible oil seed production.

Project indirect benefits to industry/economic activities

- xi) Cement industry, bricks Killen, Precast Structures Industry and other related industries' production will pick up.

Awareness support to farmers

- xii) Motivating farmers through an awareness campaign for watercourse improvement.
- xiii) Providing technical material to farmers for optimal utilization of water resources in the shape of technical manual and operational guidelines.

1.2.3 Project Beneficiaries

Majority of the direct beneficiaries of the project constitute the number of farmers (owners as well as tenants) growing crops and orchards on the watercourses improved under NPIWC-II. Assuming

35 farmers on each watercourse, the total number of the farmers benefiting from the activity comes to 1.655 million. The same number will be benefitted due to Water Users' Associations (WUAs) in terms of cooperative management of irrigation water. Moreover, 14,932 farmers will be directly benefitted from Water Storage Tanks and 11,620 as recipients of Laser Land Leveling Units. Thus, total gross direct beneficiaries are expected to be around 3.336 million households. However, net beneficiaries are expected to be 1.668 million.

Taking family size at five, total net population benefitting is expected to be 8.34 million people.

1.2.4 Project Components

The NPIWC-II project comprises four components.

C1: ORGANIZATION OF WATER USERS ASSOCIATIONS:

Establishment / reactivation of Water Users Associations (WUAs) through community driven implementation approach. Following are the scope of WUAs:

- i) Provide right of way for constructing watercourse,
- ii) Arrange skilled and unskilled labour required for reconstruction / maintenance of earthen water channel, installation of water control structures, and lining of critical reaches,
- iii) Procure construction materials for carrying out civil works,
- iv) Settle matters of disputes amongst the water users in respect of channel alignment, fixation of Naccas, distribution of work, etc.
- v) Make alternate arrangements for conveyance of water during execution of improvement works,
- vi) Carry out civil works in accordance with standards and specifications under the supervision of OFWM field staff,
- vii) Regularly undertake O&M of improved watercourses after its construction.

C2: WATERCOURSE IMPROVEMENTS:

47,278 Watercourses are planned to be improved /reconstructed and lined adopting the following criteria:

- i) New watercourses that are not yet improved under earlier programs / projects,

- ii) Reconstruction of more than 20 years old watercourses that outlived their economic / useful life,
- iii) Additional lining up-to 50% of already improved watercourses.

C3: CONSTRUCTION OF WATER STORAGE TANKS:

The project will construct 14,932 Water Storage Tanks (WSTs). Following will be the benefits of WSTs:

- i) Store water during the rainy season and times of no use in the commands of perennial / non-perennial canals for subsequent irrigations at the critical crop growth stages,
- ii) Provide flexibility for storage of plentiful canal and rainfall runoff water for its more expedient use subsequently,
- iii) Collect, store and filter water from:
 - Small Dams, springs, streams, mullahs etc.
 - Rainfall runoff over agricultural catchment during rainy season
 - Tube-wells and dug wells of low flows
 - Tail-waters from agricultural fields
- v) Regulate the flows so that it can be used efficiently when needed at large flow rates.

C4: PROVISION OF LASER LAND LEVELING UNITS:

Provision of 11,610 Laser Land Leveling (LLL) units to the farmers; the component is strengthening LLL services in the country through provision of LLL

Units to the farmers / service providers on 50% subsidized rates.

1.2.5 Project Targets

Project aims at achieving the targets for 5 years starting from the year 2019-20 to 2023-24, presented in **Figure-1.1**. Whereas the targets for each Province / Zone (excluding Sindh) are presented in **Figure-1.2**.

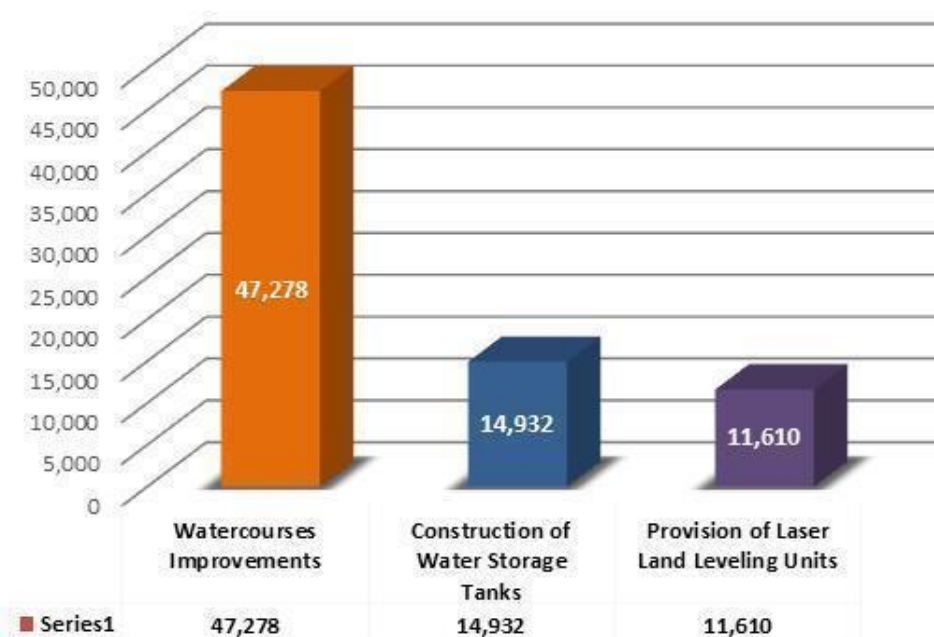


Figure 1.1: NPIWC-II Project WCs, WSTs, and LLL Targets in Pakistan

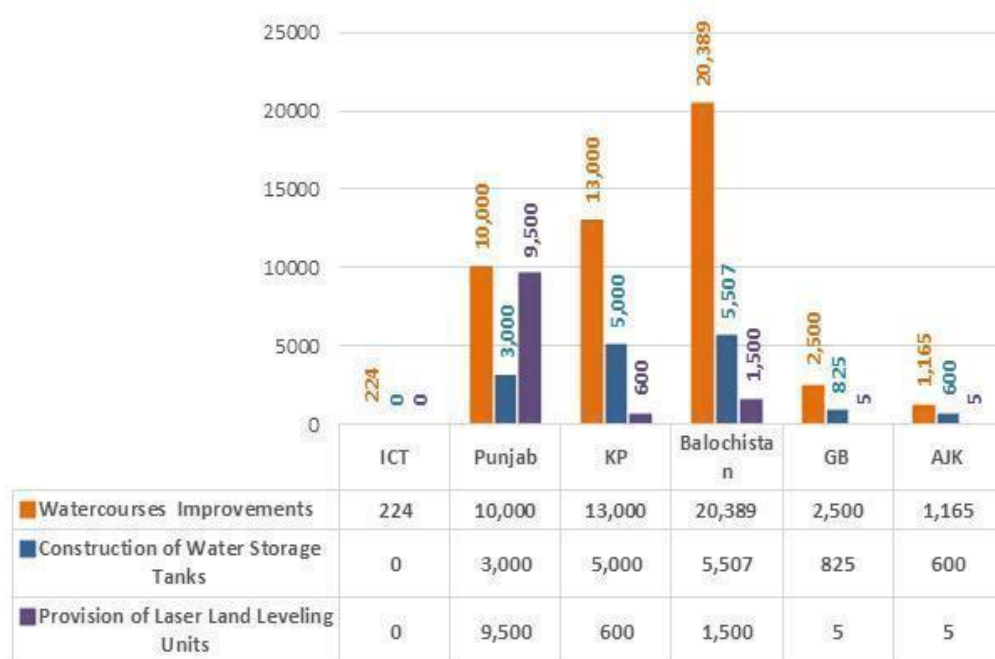


Figure 1 2: Zone-Wise WCs Improvement, WSTs, and LLL Target

CHAPTER 2: SCOPE AND SERVICES OF ME&IE CONSULTANTS

The ME&IE Consultants' services are designed to be provided through a multi-disciplinary team of qualified professionals. All the firms in the joint venture have rich experience in the field of monitoring and evaluations (M&E). The team deputed for this task in the project, comprises highly qualified professionals having long practical experience of such projects earlier launched in Pakistan. The consultants are developing a "State-of-the-Art Management Information System" (MIS) with "Geographical Information System" (GIS) focused for NPIWC-II to monitor progress on project interventions and to carry out an effective monitoring process. The MIS is helping the decision makers to make informed decisions.

2.1 OBJECTIVES OF CONSULTING SERVICES

The objective of ME&IE Consultant's services is to carry out M&E of project impacts to ensure achievement of project development objectives.

2.2 SCOPE OF CONSULTING SERVICES

The ME&IE Consultants are responsible for monitoring, evaluation and impact evaluation (ME&IE), and in this context they are carrying out the following activities:

- i) Undertake baseline, midline and endline surveys for the project activities / interventions in all the project areas,
- ii) Develop monitoring strategy, framework and Result-Based Monitoring (RBM) indicators,
- iii) Preparation of monthly, quarterly and annual monitoring, evaluation and validation reports of the project activities,
- iv) Assessing the water saving per annum on watercourses, water storage tanks and field levels as well as aggregate due to the project interventions,
- v) Assessing the improvement in water availability due to the provision of conveyance system,
- vi) Assessing the economic benefits to the agriculture in terms of changes in yields, irrigated area, cropping pattern, cropping intensity, farm income and employment in command area of watercourses and water storage tanks,
- vii) Assessing the extent of community

- mobilization, financial and administrative sustainability of water users' associations and ensuring the maintenance of watercourses, water storage tanks and laser land Levelers,
- viii) Economic impact of project interventions,
- ix) Carry out the impact evaluation of the project intervention on the economy and stakeholders,
- x) Develop a website containing information on facilities and services, applications, procedures, watercourses, water storage tanks and laser Levelers database, etc. (while the project's IT staff will maintain the website),
- xi) Provide technical support for the development of a custom-designed mobile application (Android Based) to capture on-site project progress and geo-tagged photos. It should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the management.

The said requirement is based on the following functional features:

- *Development of a GIS database with all spatial layers related to activities being undertaken under the project*
- *Give technical assistance for updating/up-gradation of water management GIS database.*
- *Development of web-based GIS application as a dashboard interface for comprehensive representation of all spatial and tabular information: custom designed web GIS application be developed for large LED screens, should be self-operative and represent project data on multiple layouts of application interface.*
- *Development of a MIS application as an integral part of web GIS to maintain information on facilities and services, applications, procedures, watercourses database, etc.*
- *Development of a custom designed mobile application (Android) to capture on-site project progress, geo-tagged photos; should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the management.*
- *Application should generate custom designed reports and analysis as per user-defined requirements.*
- *Application should generate alerts (SMS, email, web-notifications) to the user on the non-conformance of project's key indicators; the application should have the provision to custom define alerts levels and desired notifications.*

2.3 MONITORING STRATEGY OF CONSULTANTS

carry out the ME&IE of the project interventions were explained in Chapter 6 of Inception Report.

The monitoring strategy planned to be followed by ME&IE Consultants is briefly described in **Table-2.1**. However, detailed methodology and procedures to

Table 2.1: Monitoring Strategy for ME&IE Activities

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
1	Baseline, midline and endline surveys	Team Leader, Socio-Economic Expert, Agricultural Economist and Deputy Team Leader of the respective Province/Unit.	<ul style="list-style-type: none"> Baseline and impact surveys will be carried out on sample basis. Data will be collected by field teams on pre-designed data collection tools through an android application on TABs. Baseline and impact surveys will be carried out in phases as target watercourses are not preselected. Baseline will be carried out before launching of the interventions and the impact one year (two crop seasons) after the completion of the intervention. The midterm study will review the project progress at middle of the project implementation. The end line study will assess the impact of the project interventions.
2	Reporting	All core team members	<p>Following periodic reports will be prepared and submitted:</p> <ul style="list-style-type: none"> Draft Inception Report -- 45 days after the agreement, Final Inception Report -- one week after the issuance of comments by the client on the draft, Monthly Monitoring Report on 10th of following month, Quarterly Monitoring Report on 10th of the first month of the following quarter, Annual Monitoring and Evaluation Report during first month of the following year, Baseline Survey Reports (in three phases), First Phase Baseline Survey report will be submitted within the four months after the start of the assignment i.e., Submission of final inception report/Beginning of field activities. Impact Survey Reports (in phases) – two months after the data collection completion for the impact phase, Midline report in the middle of the assignment, Endline Report at the end of end line Survey, Draft Assignment Completion Report at completion of the physical works, Final Assignment Completion Report at completion of works and financial transactions. It will also include the full economic benefit of the project (NPIWC-II) on agriculture sector as well as on the GDP of Pakistan, Special Reports, as and when asked by the client.
3	Water saving assessment	Irrigation Agronomist, Field Team/Engineers	<p>Water Saving on Watercourses:</p> <ul style="list-style-type: none"> Water flow will be measured on sample watercourses selected for the baseline and impact surveys The flow will be measured at four points of the selected watercourses: close to water outlet, head reach, middle reach and tail reach.

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
			<ul style="list-style-type: none"> The measurements will be done through current meters. Based on water savings on sample watercourses, total water savings will be estimated for all project watercourses. The savings will be reported per watercourse, per annum and aggregate for the project in LPS and Acre feet.
			<p>Water Savings on WSTs</p> <ul style="list-style-type: none"> Since WSTs will be filled and emptied on a continuous basis, the water savings will be assessed on the basis of water pumped from the tank to irrigate the fields. The assessment will be done either by readings on the pump gauge or periodically interviewing the farmer. Based on water savings on sample WSTs, total water savings will be estimated for all project WSTs. The savings will be reported per WST, per annum and aggregate for the project in LPS and in Acre feet. <p>Water savings due to Laser Land Leveling</p> <ul style="list-style-type: none"> Water savings at field level will be assessed through farmers' interviews. The impact survey form will include questions to be asked from the farmers who got their land leveled: <ul style="list-style-type: none"> In how much time an acre was irrigated before watercourse improvement and land leveling In how much time an acre is irrigated after watercourse improvement with land leveling <p>The difference will be water saving due to laser land leveling</p>
			Based on water savings on sample LLL units, total water savings will be estimated for all project LLL units. The savings will be reported per LLL unit, per annum and aggregate for the project in LPS and in Acre feet.
4	Community mobilization	Social and Gender Specialist and Socio-Economic Expert	<p>The extent of community mobilization will be assessed by investigating whether:</p> <ul style="list-style-type: none"> WUAs is functional Holds regular meetings and keep record of them Makes decisions democratically The participation in the organization is voluntary It is financially and administratively sustainable Takes steps and ensures maintenance of watercourses, WSTs and laser land leveler
5	Economic benefits assessment for agriculture	Team Leader, Socio- Economist and Agricultural Economist	<ul style="list-style-type: none"> As indicated at serial No. 1, Agriculture data will be collected before (baseline) and after (impact) the watercourse improvement and WSTs construction. In both the surveys same forms will be used with the same sampled farmers through the means of face to face interviews Data on variables such as crop yields, irrigated area, cropping pattern, cropping intensity, farm income and employment will be collected and analyzed The difference between before and after situations minus natural growth will be assumed as economic benefits to the agriculture
6	Impact evaluation-on	Team Leader, Agricultural	<ul style="list-style-type: none"> The results of the baseline and impact surveys will be used to quantify impact on the economy

Sr. No.	Monitoring Activity	ME&IE Team Responsible	Monitoring Strategy
	the economy	Economist and Socio-Economic Expert	<ul style="list-style-type: none"> Additional food produced due to the project will be estimated. It is benefitted towards food security Project costs and benefits will be compared in economic and financial terms to carry out economic and financial analysis. Project evaluation parameters like IRR, NPV and BCR will be estimated.
7	Impact evaluation-on the stakeholders	Team Leader, Agricultural Economist and Socio-Economic Expert	<ul style="list-style-type: none"> Analysis as in serial 6 will be carried out with reference to various stakeholders, like community, government, farmers, etc.
8	Spot checking	Team Leader, Deputy Team Leaders & Field teams/Engineers	During the field visits for WUAs baselines impacts of Watercourses, WSTs and laser land leveling units, the interventions will be spot checked for quality of construction, material, functioning and beneficiaries' satisfaction, etc.
9	Process monitoring	Field Teams of Agriculture Deptt., Project Consultants, ME&IE Consultants & ICT/Technology Specialist	<ul style="list-style-type: none"> The processed data for all the interventions will be fed to the MIS/GIS database. Client's field staff and field teams of consultants will furnish data of their activities. The ME&IE IT consultants will assist in developing mobile application for this purpose From this data reports will be generated for process monitoring All interventions will be fully (100%) covered.
10	Project website and MIS/GIS dashboard development	ICT / Technology Specialist (Including all other core team staff will also coordinate in completing data for the MIS/GIS	<ul style="list-style-type: none"> The State-of-the-art MIS / Progress Monitoring Model will be developed for NPIWC-II. Customized forms will be developed to collect data from the implementing teams on-site for progress monitoring These forms will be made available to the teams on smart phones through an android application The teams will be adequately trained to use the application Data on physical and financial stages with dates will be fed to the system for process monitoring GIS coordinates for watercourses, WSTs, laser units (if available) and WUAs offices will be uploaded to the system and could be viewed / reached by the management online The system will be maintained on GOOGLE server so that it is accessible by the management from anywhere in Pakistan and abroad Custom reports will be possible as the user demands / desires The results could be displayed on small as well as large screens.
11	Development of Android based application	ICT / Technology Specialist	All the data collection forms / tools will be executed through customized developed Android based applications accessible with smart phones / TABs.

2.4 FRAMEWORK AND RESULTS-BASED MONITORING (RBM) INDICATORS

The framework and Results-Based Monitoring (RBM) Indicators are identified in Table-2.2 of Inception Report. The indicators are further being enhanced and refined in consultation with the client as well as the stakeholders.

The improvement of indicators is a continuous process throughout the project implementation in the light of real and on ground situations.

CHAPTER 3: CONSULTANTS' ACTIVITIES DURING THE REPORTING MONTH

As a regular part of the ME&IE assignment, routine field visits & monitoring of project interventions in the field remained continued by the ME&IE consultants, during the reporting month. Consultants also carried out different in-house activities related to ME&IE assignment:

3.1 SUBMISSION OF MONTHLY MONITORING REPORT (MMR)

As per contractual obligation, the consultants have submitted twenty fifth MMR (January 2023) in the month of February 2023. While the twenty sixth MMR (the Report in hand) for the month of February 2023 (1st February 2023 to 28th February 2023) will be submitted in stipulated time i.e., in the 1st week of current month.

Monthly Monitoring Report (MMR) explains the understanding towards all activities to be carried out as per TORs of ME&IE consultants' assignment and their completion within stipulated time frame. The activities include but are not only limited to pre-field/ in-house activities, field monitoring activities i.e., monitoring of project interventions, ICT assignments including monitoring of online data collection in the field, and development / improvement of project dashboard and website etc. Consultants of ICT Team also remained in contact Clients' officials for entering data in Dashboard and provided assistance when and where was required by the client. All the activities of the current month were in compliance with the quarterly work plan of the consultants. Hence, the main objective of the Monthly Monitoring Report is to update the Client about the activities carried out by the ME&IE Consultants during the reporting month. Reporting is an integral part of the monitoring and evaluation framework.

3.2 SUBMISSION MID-LINE MONITORING & IMPACT EVALUATION REPORT (DRAFT)

In the light of set timeline by the Client, the ME&IE Consultants have submitted Mid-Line Monitoring & Impact Evaluation Report (Draft) on 15th of February 2023.

3.3 REGULAR MONITORING / FIELD VISITS BY ME&IE CONSULTANTS

Routine/regular monitoring of the interventions remained in progress during the reporting month. However, due to heavy rains and devastating floods in most of the regions of the Punjab, Balochistan and KP, the field activities were slightly affected. Detail of data collection and regular field monitoring by field teams of Zonal Offices are given on Zone wise as below:

3.4 SUMMARY OF ACTIVITIES ICT ZONE – FEBRUARY 2023

The major activities conducted by ME&IE consultants during the current month were:

- Capacity building of Field Team Members through allowing them to participate in two distinct types of need based trainings eligible for the novice and experienced professionals including:
 - a) Five days training on "Planning and management of development project" (Two Team members attended); and
 - b) Three days training on "Report writing of development projects" (Other Two Team Members attended).
- Five Watercourses were visited in AJK for collection of Baseline data.
- Quarterly Tentative plan designed and developed as well as submitted for conducting Baseline-III, Regular monitoring and spot checking surveys.
- Assisted in draft reports writings of Baseline-II and Midterm in order to submit client office on the committed dates.
- Technically vetted the draft integrated reports compiled with the input of provincial Zonal DTLs
- Held regular inter and intra zonal as well as coordinating meetings with client and cooperating organizations for smooth functioning of manned ToRs of the NPIWC-II project.

3.5 TODATE PROGRESS OF ME&IE CONSULTANTS – ICT

3.5.1 Overall Progress:

ME&IE consultant's ICT zone has completed their targets of Baseline-I and Baseline-II. The impact / midline survey for Baseline-I has also been completed. They have to submit midline survey report against the

completed baseline & Impact targets during the middle of the project. Baseline-I and Draft.

Baseline-II reports have been submitted; the data set of the later report was validated by all zones / units' consultants including ICT-Zone of the project.

Since its inception, the ME&IE Consultants ICT field team other than routine monitoring has conducted

baseline surveys for 43 watercourses, including 36 in AJK and 7 in ICT as well as 13 WSTs in the Potohar region. They have also conducted an Impact field survey of 5 watercourses in ICT and 4 Watercourses in AJK and 7 WSTs in Potohar region. As far as this month is concerned, they have conducted baseline field visits of 5 watercourses in Jhelum, Neelum and Muzaffarabad districts of AJK.

Table 3.1: Total activities, District-wise

Sr. #	District	Baseline		Impact		Total visits
		Watercouce	WST	Watercouce	WST	
1	ICT	7	-	5	-	12
2	Muzaffarabad	7	5	2	-	14
3	Bhimber	9	2	-	-	11
4	Mirpur	8	1	2	-	11
5	Jhelum	3	4	-	-	7
6	Poonch	2	2	-	-	4
7	Kotli	2	2	-	-	4
8	Bagh	2	1	-	-	3
9	Sudhnoti	1	1	-	-	2
10	Neelum	2	-	-	-	2
11	Attock	-	6	-	5	11
12	Chakwal	-	2	-	2	4
13	Jhelum (Punjab)	-	1	-	-	1
14	Rawalpindi	-	4	-	-	4
	Sub Total	43	31	9	7	90

QUARTERLY WORK PLAN – ICT ZONE

A comprehensive tentative quarterly work plan comprising of from January to March 2023 was designed and developed for Baseline-III, regular and spot monitoring.

The ME&IE Consultants, Islamabad are committed to accomplishing all deliverables on due dates.

A comprehensive tentative Quarterly Work Plan for the next quarter is attached as an Annexure-A

3.6 CAPACITY BUILDING OF ME&IE CONSULTANTS / FIELD TEAM OFFICERS

3.6.1 Training Course on: Planning and Management for Development Projects

3.6.1.1 Executive Summery

BACKGROUND:

A 05 days' training course from 20 to 24 February 2023 was conducted at Akhtar Hameed National Center for Rural Development (AHKNCRD) titled

"Planning and Management for Development Projects". AHKNCRD was established as a Federal Training and Research Institution during 1979 and became operational with effect from 1983. It was declared as an attached department of the Ministry of Local Government and Rural Development in 1988. In recognition of invaluable services rendered by late Dr. Akhtar Hameed Khan for the cause of community development, strengthening of civil society and socio-economic empowerment of the poor and marginalized people living in informal settlements in Pakistan, Government of Pakistan renamed NCRD as Ahkter Hameed Khan National Center for Rural Development and Municipal Administration (AHKNCRD&MA). On 16th May, 2013 AHKNCRD become an attached department of Establishment Division.

INTRODUCTION:

The primary goal of training programs by NCRD is to improve employees' performance and productivity by improving existing skills and acquiring new skills. The purpose of the training was to educate participants on the concept of participatory planning and development and its role in public and private systems. The training covered a variety of topics including participatory

development, participatory planning, the role of local government representatives, and different skills, attitudes and attributes required for effective participatory planning.

The training methodology was interactive and the trainer not only spread the knowledge but also ensured that the participants were properly aware of and understanding the desired concepts. In order to ensure the effective trainings, the trainers engaged the participants in lively discussions and kept the forums open for getting feedback, allowing the participants to ask questions and give suggestions. Diverse background resource persons belonging from the government departments delivered their allocated sessions.

At the end of the training, participants' feedback was sought about their level of understanding towards the purpose of the training. A training program is the ideal way to acquire project management knowledge. However, acquiring and applying the knowledge gained is a great way to progress. At the end of the training, participants were asked to give their personal opinion through rating the workshop evaluation. A post-training assessment was also conducted to measure the changes occurred amongst the participants' perceived knowledge, skills and attitudes. Closing ceremony of the training was led by Director General of NCRD.

OBJECTIVE & PURPOSE OF TRAINING:

The primary objective of a training programme was to upgrade the learners / employees performance and productivity by refreshing current skills and acquiring new ones. The purpose of training was to train participants on the concept of Participatory Planning and Development and its role in the government & private system. The training sessions were included various topics by employing participatory approaches such as participatory planning, role of Local Government Representatives and various skills and traits required for effective participatory planning.

METHODOLOGY OF TRAINING

The training methodology was interactive as the trainers ensured that knowledge was not only disseminated but accurately perceived and understood by the participants. In order to ensure this, trainers engaged participants in discussions and kept the forum open for feedback, queries and suggestions. Free discussions/interactive sessions of the training course were supported during training through employing the word feature of power point presentations.

TRAINING PROGRAM

Following matrix elaborates the schedule and training components along with the Resource Persons engaged to impart the training amongst the learners/employees:

Training Day	Activities/Components of the Training Course	Resource Person
1st Day Monday 20 February, 2023	Inaugural Session & Recitation from the Holy Quran	
	Course Introduction	Mr. Bilal Raza, Assistant Director, NCRD
	Getting Acquainted	Mr. Israr Mohammad Khan, Director General, AHKNCRD
	Introduction to Project Management: ➤ Understanding Different Approaches of Development Planning & Projects ➤ Consideration for Selecting a Development Approach: Product, Project and Organizational Consideration	M. Salim Khan Khattak, Ex- Joint Chief Economist, Planning Commission/Ministry of Planning, Development and Special Initiatives, Islamabad

Training Day	Activities/Components of the Training Course	Resource Person
	➤ What are main decisions in project management?	
2nd Day Tuesday 21st February 2023	➤ Setting a project design through need identification approaches	Mr. Aftab Alam Khan, CEO, Resilient Future International, Islamabad
	➤ The Project Cycle Management: Different phases of project cycle	Mr. Raheel Nazir, International Development Consultant, Islamabad.
3rd Day Wednesday 22nd February 2023	➤ Project set up and its implementation: Role of the project Management Office	Dr. Faisal Anwar Malik, Former GP Head, Centre on Rural Economy, Islamabad
	➤ Project Monitoring and Evaluation through Logical Framework Analysis ➤ Project Monitoring and Evaluation System (PMES)	Dr. Usman Mustafa, Former Joint Director, Pakistan Institute of Development Economics, Islamabad
4th Day Thursday 23rd February, 2023	➤ Understanding project management disciplines ➤ How to manage project time and project scope?	Mr. Atiq ur Rehman, Director, Asian Centre for Organization Development, Islamabad
	➤ Managing project finances, budget and supply chain	Mr. Huzoor Bux Mahar, Former Deputy Chief, Governance Section, Ministry of Planning Development and Reforms, Islamabad
5th Day Friday 24 February, 2023	➤ Risk Management and Project Stakeholder Management	Mr. Shahid Cheema, Chief (Employment & Research), Ministry of Planning, Development & Special Initiatives, Islamabad

Detailed training Schedule is given at the end of the report

PROCEEDINGS OF THE TRAINING COURSE

DAY 1, 20th February 2023

SESSION I: INTRODUCTION AND OBJECTIVES OF THE WORKSHOP

The training began with recitation from the Holy Quran. It was formally initiated by **Mr. Bilal Raza**, Assistant Director, NCRD who warmly welcomed the participants, thanked everyone for sparing time to attend these sessions, and shared the objectives of training and invited **Mr. Israr Mohammad Khan**, Director General, AHKNCRD to deliver an inaugural note. After that every participant gave their brief introduction.

SESSION II: INTRODUCTION TO PROJECT MANAGEMENT

M. Salim Khan Khattak, Ex- Joint Chief Economist, Planning Commission/Ministry of Planning, Development and Special Initiatives, Islamabad presented the introduction of project management and its importance. The session was very participatory and interactive.

Following topics were covered in this session:

- Understanding Different Approaches of Development Planning & Projects
- Consideration for Selecting a Development Approach: Product, Project and Organizational Consideration
- What are main decisions in project management?

DAY 2, 21st February 2023

SESSION-III: SETTING A PROJECT DESIGN THROUGH NEED IDENTIFICATION APPROACHES

Mr. Aftab Alam Khan, CEO, Resilient Future International, Islamabad, explained the approaches to project identification in detail. He emphasized the two most important steps in a project identification through employing the situational analysis (problem and context analysis), elaboration and prioritizing of project ideas.



SESSION-IV: THE PROJECT CYCLE MANAGEMENT

Mr. Raheel Nazir, International Development Consultant, Islamabad, who explained very well about the Project Cycle Management. He delivered excellent lecture through presentation on Project Cycle Management and its stages.

He explained that Project cycle management (PCM) is a method based on years of development, focus on organizing and planning projects through foundational principles and defined phases. This process covers the inception of the project to its planning and execution.

DAY 3, 22nd February 2023

SESSION-V: PROJECT SETUP AND ITS IMPLEMENTATION

Dr. Faisal Anwar Malik, Former GP Head, Centre on Rural Economy, Islamabad, imparted the project preparation setup and its implementation. The overall session was very productive and informative.

Question/ answer session was held at the end which was very well taken by the resource person.

Following topics were covered in the training session:

- Importance of Project Preparation and Management
- Project Management as a Profession
- Project Management & Framework
- 15 Project Management Job Functions
- Two main phases of Project formulation
- Context of projects
- Stakeholder Analysis
- Key Stakeholders
- Problem Analysis
- Problem analysis using the problem tree
- Objective Analysis
- Objective tree
- Giant Chat

SESSION-VI: PROJECT MONITORING AND EVALUATION THROUGH LOGICAL FRAMEWORK ANALYSIS

Dr. Usman Mustafa, Former Joint Director, Pakistan Institute of Development Economics, Islamabad, a legend Professor and Trainer was resource person of the Training Course. He delivered his lecture on Project Monitoring and Evaluation through Logical Framework Analysis. The lecture went through very participatory and interactive throughout the session. He explained the concepts with examples while discussing the Logical Framework as well as its importance in project proposal. The lecture remained gripping of the topic and was very clear and knowledgeable for the participants. The overall session was very productive and informative. Participants raised many question and got meaningful and satisfactory replies from the resource person.

Following points were covered in the session:

- What is project and its importance
- Economic Growth and Development
- Approaches to Generating Results
- Vision, Mission and Goal
- Objectives, output, input & activities
- Framework for project definition
- What is result?
- Management and function
- Effectiveness & Efficiency
- Impact & its types



Figure 3.3: Lecture proceedings by Prof Usman Mustafa

DAY 4, 23 February 2023

SESSION-VII: UNDERSTANDING PROJECT MANAGEMENT DISCIPLINES

Project Management Discipline topic was thoroughly covered by Mr. Atiq Ur Rehman, Director, Asian Centre for Organization Development, Islamabad. The session was very interactive and productive.

Following points were covered in the session:

- Understanding PM disciplines
- Managing time and scope
- PM Disciplines
- What is PM discipline?
- Why PM?
- Different disciplines of PM
- Scope Management

SESSION-VIII: MANAGING PROJECTS FINANCES, BUDGET AND SUPPLY CHAIN

Mr. Huzoor Bux Mahar, Former Deputy Chief, Governance Section, Ministry of Planning Development and Reforms, Islamabad has delivered the project finances, Budget and supply chain in details. A participatory session was imparted.

Following topics were covered in the session:

- Development Objectives
- Development Planning
- Managing Project Finances
- Supply Chain Management
- Expenditure Management Practices
- Development Budgeting
- National Plan/Projects Approving Fora
- PSDP Financing Mechanism
- Conditions for Concept Clearance Proposal Financing
- Budgeting Project Capital Cost
- Enhancing Effectiveness of Project Finances

DAY 5, 24 February, 2023

SESSION-IX: RISK MANAGEMENT AND PROJECT STAKEHOLDER MANAGEMENT

Mr. Shahid Cheema, Chief (Employment & Research), Ministry of Planning, Development & Special Initiatives, Islamabad has described the Risk Management, its types and situation involving exposures to danger. He explained in detail that in project management, risk management is the practice of identifying, evaluating, and preventing or mitigating risks to a project that have the potential to impact the desired outcomes.

Following topics were covered in the training session:

- Risk types
- Steps in Risk Management
- Common Project Risk
- How to identify Risk?
- Stakeholder Management

LESSON LEARNED

At the end of training, the participants shared their knowledge with the colleagues in the training to recap the whole training course. Training programs are an ideal way to acquire project management knowledge; however, capturing and applying lessons learned is an excellent way to develop:

- The participants will be able to the ultimate purpose of lessons learned is to provide future project teams with information that can increase effectiveness and efficiency and to build on the experience that has been earned by each completed project.
- Participants gained knowledge regarding the development management is the strategic planning, administration and controlling of a project during its development life cycle, from project planning through to construction completion and project exit.
- Project managers work was diligently to better define goals and optimize workflows to improve productivity and project quality. With a clear roadmap in hand, teams can better navigate the project and perform the required tasks, ultimately improving the overall quality of work and producing a high-quality product.



Figure 3.4: Training session in progress at NCRD

EVALUATION SESSION

At the end of the training, participants were given workshop evaluation Performa to share their feedback. In addition, a post-training assessment test was also conducted to help gauge the perceived changes in knowledge by the participants at the end of the training.



Figure 3.5: FTI, ICT-Zone awarded by certificate from NCRD



Figure 3.6: S&G specialist awarded by certificate from NCRD

CONCLUSION

Training and development is considered as a strategy for growth in every organization. It is adopted by the organization to fill the gap between

skills and future opportunities. These training programs definitely enhance skills, improve efficiency, and productivity and growth opportunities for the employees.

CONCLUDING SESSION & AWARD OF CERTIFICATES CLOSING

Closing ceremony of the training was led by Director General of NCRD. The ceremony was initiated with a note of thanks and he addressed the participants and asked about their learning experience and distributed training certificates. He thanked the participants for their active participation in the training. He also congratulated them on successful completion of this training course and hoped that the knowledge gained would be helpful in effective and efficient implementation of the project/ program activities.

RECOMMENDATION/SUGGESTION

- Group activities should be part of the training to enhance understanding and make the training more participatory.
- Presentation slides should be more legible and clear.
- Relevant trainees must be nominated for the training.
- At the end of each session, participants should be given an evaluation form to rate the resource person session.
- more and frequent nominations for further capacity building of ME&IE consultants employees.



Figure 3.7: Group photograph of training at NCRD

3.7 THREE DAYS TRAINING ON: REPORT WRITING OF DEVELOPMENT PROJECTS

3.7.1 Agenda:

Days	Topics	Presenter
Day 1: (27 th February-23)	<ul style="list-style-type: none"> Workshop introduction Report writing skills introduction. Significance of report writing in development project. Common challenges in report writing and their resources. 	<ol style="list-style-type: none"> Mr. Muhammad Ahsan Jamil. (workshop coordinator at NCRD) Mr. Aftab Alam Khan (CEO resilient future international)
Day 2: (28 th February-23)	<ul style="list-style-type: none"> Significance of proposal writing. Proposal writing for development project. Professional report writing at different phases in a development project cycle. 	<ol style="list-style-type: none"> Mr. Raheel Nazir Chaudhary. (development professional, Islamabad).
Day3: (1 st March-23)	<ul style="list-style-type: none"> Preparing financial and budget reports for development project M&E report writing for development project 	<ul style="list-style-type: none"> Dr. Atiq-ur-Rehman (Director , Asian center for organization development, Islamabad)

3.7.2 Executive summary:

- The report was written to provide information about the training on "Report writing of development project" held in NCRD (ICT) on 27th of February-2023 to 1st March-23 (three days training).

Training session includes:

- The presentation and practical tasks.
- Objective of the training includes all the main points and ideas about the report writing skills.
- Recommendation includes the continuation of these kind of trainings in future and relevancy of the presentations related topics.

3.7.3 Objective

The major objectives of training are as follows:

- To realize the need and importance of report writing for public and non-governmental development project.
- To learn writing of report at various stages of a development project.
- To promote sharing of experiences among the participants with respect to report writing skills for development projects.

3.7.4 Methodology:

The training involved:

- face to face discussions.

- demonstrations of different topics on report writing.
- Presentations on report writing.
- Practical task/ assignments

3.7.5 Lessons Learned

Following points were learned in the said training:

- demands of organization related to report writing. (Lessons learned, recommendation)
- Issues faced by the writer while writing reports. (Gender blind reports, language issues, data issues)
- Challenges faced in report writing.
- Financial reports. (balance sheet, income statement, cash flow statement)
- Introduction to framework, a tool for project design and reporting.
- Writing better reports by taking care of the Seven Cs, such as:
 - Clear
 - Concise
 - Consistent
 - Coherent
 - Conventional
 - Complete and thoughtful
 - Courageous
- Rules for report writing (do or don't):
 - Avoid using all capitals (e.g. write "a bad situation" not a BAD situation")

- Spell number less than 10 (e.g. use “ate six times daily for 12 days” not “ate 6 time daily for 12 days”)
 - Avoid word “very” (e.g. use “they perform well” not “they perform very well”)
 - Use the word data correctly (e.g., right use of data in the sentence: “data were impressive” not “data was impressive”)
8. Program framework, demonstrate links between what we do and what change we seek. It ensures that our M&E activities are practical and relevant.
 9. Goal (the ultimate purpose of our project) and strategic objective (highest level of result that a project achieved) of a project.

3.7.6 Conclusions

- The training sessions successfully imparted with good knowledge and skills amongst more than 100 participants
- The host training sponsored organization received feedback from the participants in order to tailor effective future training programs of this kind.

3.7.7 Recommendations

- Training session must be provided on need base with regular intervals.
- The presentation must be topic oriented rather than generic.



Figure 3.8: Training session at NCRD



Figure 3.9: Training session at NCRD



Figure 3.10: Training session at NCRD

3.8 KEY CHALLENGES & MITIGATION MEASURES ADOPTED

3.8.1 Some Limitations:

Some limitation are as follows:

- Smooth running of the project’s activities warrants a continuous coordination with OFWM Directorate. It would be good, that this coordination may come to a level that for any activity or support, they may extend their services on telephone call.
- Field visits schedule for conducting Baseline-III, regular monitoring and spot monitoring were tentatively planned during the current month but could not materialized due to number of reasons including:
 - financial crunch on the part of either the client or the company.
 - Non availability of Driver for field visits.
 - Lack of Admin and financial support staff.

3.8.2 Suggestions

For the Smooth operations of field activities following are the main Suggestions:

- Equipment is needed for measuring flow of water and recording of necessary data like pygmy meter and Tablet.
- First aid box, and basic necessities like, umbrella, water with cooler must be provided to the field teams in order to combat emergency situation.
- Tablet must be providing at least 2-3 days' prior to visit.
- Each member of field team must have their official identity card when the team visits the field or the office of OFWM.
- Vehicle with Driver must be available on time to carry out field and other official purposes.
- Field visit Plan/ advance request must be approved prior to field visit in order to avoid any inconvenience in conducting field activities as against the planned field work schedules.

3.9 ACTIVITIES PUNJAB ZONE – FEBRUARY 2023

Broadly monthly monitoring Activities of ME&IE Consultants during the month under review are classified as under.

1. Pre / Post Field Activities
2. Field Activities
3. Coordination / Meeting of ME&IE Consultants with stakeholders

3.9.1 Pre-Field Activities

The ME&IE Consultants team remained busy with data Collection / Validation of various Interventions of OFWM for the PMIS-Dashboard. The Task regarding watercourses and water storage ponds/ tanks of all Divisions / Districts have been completed. The Data Collection about the Provision of the Laser Land Levelling units from the OFWM Directorate General is under process.

3.9.2 Field Activities

Field activities during the month under review were confined to data collection/validation for PMIS Dashboard.

The activities of data collection/ Reporting on Various interventions in the field are summarized in Table-1. Ecological Zone / District wise details are given in **Annexure-F**.

Table 3.2: Summary of Data collected and reported of various Interventions till date

District	Baseline		Impact		Total Visits
	WC	WST	WC	WST	
Attock	-	6	-	5	11
Bahawalnagar	10	3	-	-	13
Bahawalpur	1	1	-	-	2
Bhakkar	3	5	3	5	16
Chakwal	-	2	-	2	4
Chiniot	1	-	-	-	1
Dera Ghazi Khan	3	3	3	3	12
Faisalabad	3	1	-	-	4
Gujranwala	7	1	7	1	16
Gujrat	6	1	-	1	8
Hafizabad	10	3	9	-	22
Jhang	4	1	-	-	5
Jhelum	-	1	-	-	1
Kasur	3	2	2	2	9
Khanewal	7	1	-	-	8
Khushab	-	1	-	1	2
Lahore	1	-	-	-	1
Lodhran	15	1	-	-	16
Layyah	-	1	-	-	1
Mandi Bahauddin	4	2	1	-	7
Multan	9	5	-	-	14
Muzaffargarh	6	2	6	2	16
Nankana Sahib	3	2	-	-	5
Narowal	1	-	-	-	1
Okara	15	1	4	-	20
Pakpattan	6	1	-	-	7
Rahim Yar Khan	11	2	-	-	13
Rajanpur	1	-	-	-	1
Rawalpindi	-	4	-	-	4
Sahiwal	6	1	4	-	11
Sargodha	5	2	-	-	7
Sheikhupura	8	2	-	-	10
Sialkot	5	-	-	-	5
Toba Tek Singh	5	2	-	-	7
Vehari	6	-	-	-	6
Grand Total	165	60	39	22	286

As depicted in the table, the ME&IE Consultants have achieved the targets successfully.

3.9.3 Coordination / Meeting of ME&IE Consultants with Stakeholders / OFWM Officers

ME&IE Consultants meetings with Various Stakeholders viz. OFWM officers and Water Users Associations Chairmen/ Members are held as a regular feature for better understanding of the project affairs. During the month under review, the following meetings were held in Directorate

General, OFWM Office at Headquarters and with other OFWM Directorates in the field.

3.9.3.1 Meeting Held in the Directorate General, OFWM Office, Lahore

Date:	February 8, 2023
Venue:	Director General OFWM Office Davis Road, Lahore
Participants:	
<ol style="list-style-type: none"> Hafiz Qaisar Yasin Director Headquarters OFWM Mr. Tahir Mehmood Focal Person of DGA OFWM/ DDA, Headquarters (OFWM) Muhammad Yousaf Bhatti Deputy Team Leader Punjab ME&IE Consultants Mr. Awais Jahangeer Focal Person to DGA OFWM, ME&IE Consultants 	
Discussion:	
<ol style="list-style-type: none"> Focal Person to DGA OFWM, ME&IE Consultants shared the data collection progress report for PMIS Dashboard. He briefed that data collection of watercourses and water storage ponds till now has been completed from all field offices & directorates of OFWM. The focal Person of DGA OFWM appreciated the efforts of ME&IE Consultants in completing the task. Furthermore, Focal Person to DGA OFWM, ME&IE Consultants added that data received from the field is under cleaning/validation process and it will be integrated into PMIS Dashboard till 15th February 2023. He added ME&IE Consultants will give the presentation on PMIS Dashboard with extended features till 20th February 2023 and all possible requirements of the department will be fulfilled. Focal Person of DGA OFWM ensured the provision of initial data relevant to Laser Land Leveler (till to date) at the earliest from headquarters as decided in the last meeting on 16th January 2023. He further added the provision of detailed data on LLL as per prescribed format may take some time to be ready shape. On this matter Deputy Team Leader Punjab, ME&IE proposed that ME&IE Consultant's team can assist in the headquarters for collecting the data from the files. 	

- Focal Person to DGA OFWM, ME&IE Consultants presented the APK Android Based Application for the data collection of Watercourses & Water storage ponds from the field. He briefed that ME&IE Consultants developed the application as per decided tools and now the application is ready to implement.
- Focal Person to DGA OFWM discussed the field staff training schedule and the program is ready. Furthermore, he shared the tentative agenda & training module. DDA Headquarters responded that training will be started from Lahore Division and after testing of Android Based application & its implementation will move further to the next divisions. Further, he added after consultation with DGA OFWM & Director of Agriculture, OFWM, Lahore division, the date & time will be intimated later and all other necessary arrangements will be made.
- DTL Punjab ME&IE Consultants asked for the provision of glimpses and event details relevant to NPIWC-II of the Punjab Component for the project's official website. The focal Person of DGA OFWM responded that the team is working on this matter and data will be provided positively by next week.
- ME&IE Consultants appreciated the support of OFWM Directorates, Deputy Directors, Assistant directors, and field staff in recent field surveys with ME&IE Consultant's field teams for the LLL service provider & project beneficiary's interviews. Moreover, DTL Punjab shared the field observations/ recommendations for improvement on the basis of recent field surveys and feedback from farmers.
- Director Headquarters appreciated the work done by ME&IE Consultants for data collection and emphasized strong coordination among departments & consultants and this will bring win position for all stakeholders of the project.

Decisions:

- ME&IE Consultants ensured to integrate all data of WC&WSP collected from the field on the PMIS Dashboard till 15th February 2023.
- ME&IE Consultants will give detailed presentations on PMIS Dashboard till 20th February 2022
- Focal Person of DGA OFWM will provide the initial data of LLL delivered till the day and date of Tuesday 14th February 2023.
- ME&IE Consultants will depute their field teams (if needed) to DGA OFWM Office for

- data collection of LLL from files at the request of the Focal Person of DGA, OFWM.
5. Focal Person of DGA, OFWM will provide the training schedule after consultation to the concerned quarters positively by next week.
 6. Focal Person of DGA, OFWM will provide glimpses and data for the project's official website, positively by next week.



Figure 3.11 View of Meeting held in Directorate General (Agri) OFWM Office

3.9.3.2 Meeting held with Director, (Agriculture) OFWM, Lahore Division

Date:	February 16, 2023
Venue:	Directorate (Agriculture) OFWM office, Thokar Niaz Baig, Lahore Division

Participants:

1. **Mr. Dr. Ahmad Bilal**
Director (Agri) OFWM, Lahore Division
2. **Azhar Mehmood**
Agri: Engineer Director (Agri) OFWM, Lahore Division
3. **Mr. Muhammad Yousaf Bhatti**
Deputy Team Leader, ME&IE Consultants, Punjab Zone
4. **Mr. Awais Jahangeer**
Focal Person to D.G., OFWM, ME&IE Consultants, Lahore

Discussion:

1. The Deputy Team Leader ME&IE Consultants briefed about ME&IE Consultants' Activities in Lahore Division
2. The Focal Person to DGA., OFWM ME&IE Consultants Agreed to share the Basic Interventions' Data after necessary rectification. ME&IE consultants & OFWM officials both agreed on basic data rectification/validation for PMIS-Dashboard
3. The Focal Person of ME & IE Consultants also endorsed the suggestion from the Focal person to the DGA office that the training on Android-based application systems for the field staff will be initiated from Lahore.
4. The Participants also share information on serving the Supplies company's SCC in Lahore. The Consultants also share the Field Experience about Laser Land Leveler usage in the Field



Figure 3.12 ME&IE Consultants meeting with Director OFWM, Lahore Division Dr. Ahmed Bilal

3.9.3.3 Meeting held with Director, OFWM at Training Institute Lahore

Date:	February 16, 2023
Venue:	Director OFWM, Training Institute Office, Thokar Niaz Baig, Lahore
Participants:	
1.	Dr. Maqsood Ahmed Director OFWM, Training Institute, Lahore
2.	Dr. Mazhar Ahmed Agronomist: Training Institute Lahore
3.	Mr. Muhammad Yousaf Bhatti Deputy Team Leader, ME&IE Consultants Punjab Zone
4.	Mr. Awais Jahangeer
5.	Focal Person to D.G OFWM, ME&IE Consultants, Lahore
Discussion:	
1.	A detailed discussion was held on the role of the OFWM Training institute. The Director fully explained the "Capacity building" strategy for enhancing land and water productivity.
2.	Dr. Maqsood Ahmad explained the Institute's activities. He also briefed on the training of the operator of the laser land leveler under NPIWC-II. A note has also been added on institute role and training for operators of laser land levelers under National Program.
3.	The ME&IE consultant team also shared certain issues of various interventions, particularly of the laser land leveler supply companies.
4.	The deputy team leader also extended certainly applicable suggestions regarding laser land leveler intervention.



Figure 3.13 The Consults Team participating in the discussion regarding the role of the institute in project

3.9.4 On Farm Water Management Training Institute

The Canal irrigation system in Pakistan is one of the oldest and of unique nature. The water flow from the rivers to the canal/minors and through water channels reaches the farm for irrigating the crop fields.

The water availability from the river has been estimated at 142-million-acre feet per annum. Against this quantum of available water, only 49 million acre-feet are available at farm gets for irrigating the crops. The remaining water is lost in one way or the other during water flow. In this regard the ON Farm Water Management (OFWM) training institute in Lahore was established during 1980, for training purposes to improve land and water resources productivity.

The institute has passed through certain phases but its activities spin around the capacity building in enhancing the productivity per drop of water.

Training at the institute is offered to local and international participants. Various types of trainings given at the institute, include:

Non-development training for OFWM officers as a basic and pre-requisite for the promotion from one grade to an higher grade. Courses are also offered for lower-grade persons. The staff members of other wings of the agriculture department also get benefits from such trainings.

Duration of such courses varies from 2 weeks to 6 weeks depending upon the nature of the course.

In-service training is also held for capacity building purposes from/ of the OFWM and other departments at different times depending upon the needs of the learners/ trainees.

Training for development Projects - Such training comprises short courses like awareness seminars, field training, farmer field days, Refresher courses/ programs, orchard management /water conservation in barani areas, etc.

Such facilities are extended to various stakeholders, even to the consultants. Training courses for operators of laser land levelers under NPIWC-II are part of such facilities.

Research activities relevant to water resources were also a part of this training institute. Since, July

2022, such activities have been entrusted under Director farms.

As a pioneer institute of training for improving the water saving, the role of OFWM training institute is of vital importance, not only in Punjab but also for the entire Pakistan.

3.9.5 Provision of Laser Land Leveling

Uneven farming fields are one of the main causes of water losses in field applications. According to some estimates such losses of water are more than 20% of the water available at the farm.

The leveled piece of lands besides providing water saving; also increase the land productivity and hence increase the crop yield and reduce the labor.

The various means of field leveling are in practice across the Punjab Province, such as:

- 1) Bullock Driven leveler
- 2) Tractor Driven leveler
- 3) Tractor Scraper
- 4) Laser Land Leveler

In compared with other leveling technologies, the laser land leveling technology has been observed one of the highest beneficial. It saves irrigation water, irrigating time and efficiency of other agriculture inputs/practices. Resultantly, the productivity of land increases. The use of laser technology in leveling the field was introduced in the Punjab in 1985 through the On Farm Water Management program.

The Provision of a laser land leveler is one of the important components of the National Program of improvement of water courses (NPIWC-II), for improving the productivity of irrigation water. In the Punjab province, 9500 Laser land leveler units are to be provided to the farmers on subsidized rates.

The OFWM institute in one way or other serves the user/ owner/ services provider of this intervention, in its proper use.

Under the current National Program of improvement of watercourses, NPIWC-II, the OFWM training institute is also providing a one-week training course. The training is being given to the service providers [Owners] of laser land leveler or its nominee/ Driver at Lahore, Training Institute Lahore. During the training, the trainees are being provided with free meal and accommodation

facilities at the institute. The training comprises on campus training (for 2 days) and field training for about 3 days. About 20-25 participants are enrolled at a time from different districts of the Punjab.

The number of operators who have received training under NPIWC-II from the institute varies year to year as shown in Table-3.5.

Table 3.3: Numbers of Laser Land Leveler Operators Received training under NPIWC-II

Sr. No	Financial Year	Nos.
1	2019-20	711
2	2020-21	1911
3	2021-22	2679
	Total	5301

The participants of the training were from all parts of the Punjab province except Rawalpindi division where this intervention was not a component of the project in this area.

3.10 ACTIVITIES of KP ZONE – FEBRUARY 2023

Updated Progress of ME&IE Consultants, KP Zone includes:

- Meetings were carried out with Gilgit OFWM Offices for collection of undergoing schemes. However, it was found that schemes were mostly completed under NPIW program. New schemes will be initiated when Govt may allocate budget.
- Baseline survey field visits were carried out of 27 WCs and 12 WSTs during the reporting month.
- NPIWC-II KP Chapter, all watercourse, and water storage tank schemes coordinate verification through Google Earth and identification of incorrect coordinates.
- One Day of refresher training was held at Abbottabad for all Hazara division district officers on android mobile application and taking coordinates through application for NPIWC-II project schemes.
- Drafted KP MMR report for the month of January
- A one-day refresher training workshop was arranged by ME&IE consultants on “Field Progress Data Collection through Android Application” under the Project “National Program for Improvement of Watercourses in

Pakistan Phase-II (NPIWC-II)”. The training was given to the On-Farm Water Management officers from all Khyber Pakhtunkhwa districts. The training was given at the following zonal level where district officers of 35 districts were invited:

1. Peshawar (Central)
2. Swat (North)
3. Abbottabad (North)
4. Bannu (South)

The training was given to enhance the capacity building of district officers on “Data Collection through Android Application”. Also, district officers were mobilized, on how to take coordinates from this application against each scheme and verify it.

3.10.1 Overall Progress:

The ME&IE Consultants KP field teams conducted two baseline surveys from June 2021 to January 2023. They visited 192 watercourses and 77 WST schemes for data collection for the baseline survey in KP & GB, similarly, for data collection of the Impact survey in KP & GB 57 watercourses 21 WSTs and 5 PLL interventions were also visited.

District-wise Baseline & Impact Survey field visits till Reporting month

Zone / Region	District	Baseline		Impact		PLL	Total
		WC	WST	WC	WST		
KP	Malakand	6	1	-	-	-	7
	Dera Ismail Khan	38	10	2	-	5	55
	Nowshera	20	9	1	1	-	31
	Mansehra	15	4	1	-	-	20
	Peshawar	13	7	1	-	-	21
	Haripur	9	7	2	2	-	20
	Charsadda	7	2	1	1	-	11
	Mardan	6	1	1	-	-	8
	Swabi	4	1	2	-	-	7
	Buner	6	2	-	-	-	8
	Kohat	5	-	1	-	-	6
	Swat	10	4	-	-	-	14
	Abbottabad	2	1	1	-	-	4
	Lakki Marwat	3	2	1	1	-	7
	Lower Dir	1	1	-	-	-	2

Zone / Region	District	Baseline		Impact		PLL	Total
		WC	WST	WC	WST		
	Torghar	1	-	1	-	-	2
	Bannu	5	1	1	-	-	7
	Battagram	1	1	1	-	-	3
	Khyber	-	1	-	-	-	1
	Tank	-	2	-	1	-	3
	Karak	-	2	-	-	-	2
	Shangla	-	2	-	-	-	2
	Upper Dir	-	1	-	-	-	1
	Sub Total KP	152	62	17	6	5	242
GB	Skardu	7	2	7	2	-	18
	Diamer	6	2	6	2	-	16
	Ghanche	6		6		-	12
	Gilgit	5	3	5	3	-	16
	Ghizer	4	2	4	2	-	12
	Shigar	4	2	4	2	-	12
	Nagar	2	1	2	1	-	6
	Astore	2	1	2	1	-	6
	Kharmang	2	1	2	1	-	6
	Hunza	2	1	2	1	-	6
	Sub Total GB	40	15	40	15	0	110
Grand Total		192	77	57	21	5	352

3.10.2 Achievements against Outputs

The status of data submission and missing data of all schemes on the “PMIS Dashboard” was shared with each district during training, so they can complete and verify the data with actual.

1. Zone: Central Zone

Venue: Directorate of OFWM, Peshawar

Date: February 6, 2023.

2. Zone: North Zone

Venue: Agriculture Farm Services Centre Amankot, Mingora Swat

Date: February 7, 2023.

3. Zone: South Zone

Venue: District Office OFWM, Bannu

Date: February 09, 2023.

Justification for not meeting the targets.

Although teams visited to Dera Ismail Khan and Gilgit Baltistan and performed above mentioned activities, however, due to shortage of funds as well freezing of schemes at Govt level, the visits were not performed to all other locations as planned.

Suggestions to mitigate Key Challenges:

For the Smooth operations of field activities following are the main Suggestions provided to Team Leader and Authorized Representative of JV.

- It was observed that all the data was being collected on android system and teams don't keep the data in any hard form. One of the KP team managed to compile it to 4 pages and it was already shared. If management may agree, it could be printed and all teams may keep this hard data with them for all coming surveys.
- First aid box, basic necessities (umbrella) must be provided to field team in order to meet any emergency situation.
- Tablet must be providing at least 2-3 days' prior field visit.
- Each member of field team must have their official identity card when team visit field or office of OFWM.

3.11 ACTIVITIES BALOCHISTAN ZONE – FEBRUARY 2023

- Updated progress of ME&IE Consultants, Balochistan by February 2023.
- Visit of Kalat, Rakshan, and Makran Divisions regarding data collection for Dashboard, Balochistan.
- Tentative Quarterly Work Plan

3.11.1 UPDATED PROGRESS OF ME&IE CONSULTANTS – BALOCHISTAN

The ME&IE Consultants, Balochistan, have monitored 17 sites during the pre-testing of Monitoring Tools in different months. A total of 13 sites were monitored during executive visits with high officials. The ME&IE Consultants, Balochistan have conducted two baseline surveys, the first was conducted in 2021 and the second was conducted in 2022-23. A total of 149 sites were monitored during the baseline surveys i.e., **61** Watercourses and **88** Water Storage Tanks. The ME&IE, field teams monitored **07** sites of PLL out of 34 total sites; the percentage of monitored sites is 20%. During the reporting month **07** watercourse and **19** WST schemes have been visited for Impact Assessment Survey. The Impact Assessment Survey was conducted in the 2022-23 in which till reporting month **60** watercourse, and **82** WSTs were visited for data collection. Regular monitoring/spot-checking is another important activity of ME&IE Consultants. The Balochistan field teams have so far monitored more than **77** Watercourses and **101** Water Storage Tanks in regular monitoring/spot checking. In regular monitoring, ME&IE Consultants monitored ongoing / completed sites covering all financial years i.e., 2019-20, 2020-21, and 2021-22. As soon as the Department initiates the works on F.Y. 2022-23 and finalizes the beneficiaries' lists, the ME&IE, Balochistan will start the “Baseline Survey – 3” activities accordingly.

The Balochistan field teams have monitored the sites of 22 districts out of 33, the remaining districts to be covered in upcoming months.

Table-3.2 Summary of Field Activities, District-wise

District	Baseline Survey		Impact Survey		PLL	Total Visit
	WC	WST	WC	WST		
Jaffarabad	3	-	3	-	4	10
Jhal Magsi	1	4	1	4	-	10
Kachi	2	10	2	10	-	24
Kalat	3	4	3	4	-	14
Khuzdar	3	7	3	7	-	20
Killa Abdullah	7	2	3	2	-	14
Killa Saifullah	-	4	4	4	-	12
Loralai	3	7	3	7	-	20
Mastung	5	8	5	8	-	26
Musakhail	1	1	1	1	-	4
Nasirabad	9	6	9	6	-	30
Nushki	2	1	2	1	-	6
Pishin	2	9	2	9	-	22
Quetta	3	15	3	12	-	33
Sherani	2	2	2	2	-	8
Sibi	1	3	1	3	-	8
Sohbatpur	10	-	10	-	3	23
Zhob	2	1	2	1	-	6
Ziarat	2	4	1	1	-	8
Total	61	88	60	82	7	298

3.11.2 VISIT OF 03 DIVISIONS TO COLLECT THE DASHBOARD DATA – BALOCHISTAN

The ME&IE Consultants conducted a two-day training/workshop regarding data collection through the Android Based Application on 7th and 8th December 2022 in Quetta. It was observed the progress of data receiving was quite weak, in spite of several reminders. Therefore, ME&IE Consultants planned a rush to visit all districts' headquarters to expedite the work and give them support and assistance. The activity was carried out in a phased manner. In the first phase, ME&IE Consultants covered five Divisions i.e., Quetta, Naseerabad, Sibi, Zhob, and Loralai. The second phase was conducted in the reporting month and covered the remaining 03 divisions i.e., Kalat, Makran, and Rakshan. In these activities, multiple meetings and data-feeding activities were conducted.

The detail of visits/meetings are mentioned below:

Date	09 th February 2023
Venue	Office of the DD, OFWM, Kharan.
Participants	
i.	Mr. Zia ur Rehman SE OFWM, District Kharan
ii.	Mr. Safar Khan SE OFWM District Chaghi


- iii. Mr. Mujeeb ur Rehman, WMO, OFWM
- iv. Mr. Abdul Latif AE, Dawood Khan, OFWM, District Washuk
- v. Mr. Abdul Salam AAE, OFWM
- vi. Mr. Naseeb Jan FTI, ME&IEC, Balochistan
- vii. Mr. Muhammad Umair M&E Officer ME&IEC

Meeting Agenda/Points discussed:

- The ME&IEC field team visited the Rakshan Division regarding data collection/validation of the Dashboard, Balochistan of the respective districts.
- The OFWM staff of Chagai and Washuk Districts also joined this session and shared their problems during data collection and uploading for the dashboard, Balochistan.
- The ME&IE consultants solve these issues raised by the OFWM staff, and now the data feeding process is ongoing.



Figure 3.8: View of data validation by OFWM staff of Rakshan Division at district Kharan

Date	10 th February 2023
Venue	Office of the DD, OFWM, Noshki.
Participants	
i.	Mr. Dad Muhammad, AE, OFWM, District Noshki
ii.	Mr. Abdul Ghaffar, SE, OFWM, District Noshki
iii.	Mr. Syed Arif Shah, AAE, OFWM, District Washuk
iv.	Mr. Naseeb Jan, FTI / M&E Expert, ME&IEC, Balochistan
v.	Mr. Muhammad Umair, M&E Officer ME&IEC, Balochistan
<ul style="list-style-type: none"> An official meeting was held with OFWM staff at district Noshki. The OFWM staff shared some issues they faced with data uploading, which were promptly resolved by the ME&IEC team and briefed them about the importance of dashboard implementation. 	
	
<p>Figure 3.8: meeting held with OFWM staff at district Noshki</p>	

Date	11 th February 2023
Venue	Office of the DD, OFWM, Noshki.
Participants	
i.	Mr. Abdul Ghaffar, OFWM SE. Noshki
ii.	Mr. Dad Muhammad AE OFWM Noshki
iii.	Mr. Syed Arif Shah AAE OFWM, Washuk
iv.	Mr. Naseeb Jan FTI / M&E Expert, ME&IEC, Balochistan
v.	Mr. Muhammad Umair M&E Officer ME&IEC
<ul style="list-style-type: none"> The ME&IEC field team visited the office of the DD, Noshki, where they met with OFWM staff of the respective districts regarding data collection of Dashboard, Balochistan. 	

- The OFWM staff gave a very positive response and the process of uploading data is now ongoing.



Figure 3.8: Data validation of districts Noshki and Washuk at District Noshki.

Date	10 th February 2023
Venue	Zonal Office, Quetta
Participants	
i.	Mr. Tariq, Agriculture Officer, OFWM, District, Khuzdar
ii.	Mr. Muhammad Khan, Agriculture Officer, OFWM, District Khuzdar.
iii.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IEC.
iv.	Mr. Arsalan, M&E Officer, ME&IEC
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> The DLT discussed the visit plan and assigned the task along with the timelines. FTIs shared visits plan with tentative expenses 	





Figure 3.9: View of DD Office, Khuzdar and data validation of district Khuzdar



Figure 3.11: Group photo of OFWM and data validation / uploading at District Panjur.

Date	09 th February 2023
Venue	Office of the DD, Panjur
Participants	
i.	Mr. Zaman, DD, OFWM, District Panjur.
ii.	Mr. Muhammad Asharaf, Secretary, Marketing Committee, Agriculture Department, District Panjur.
iii.	Mr. Skindar, Sub Engr. OFWM, District Panjur
iv.	Agriculture Officer, OFWM, District Panjur
v.	Mr. Manzoor Kasi, Focal Person / FTI, ME&IE Consultants,
vi.	Mr. Arsalan, M&E Officer, ME&IE Consultants
Meeting Agenda/Points discussed:	
<ul style="list-style-type: none"> The ME&IE Consultants visited the two divisions Makran and Kalat and met with OFWM staff regarding data collection/validation. The ME&IE consultants solve the issues raised by the OFWM staff, and now the data feeding process is ongoing. 	

3.11.3 CORRESPONDENCE WITH DG, OFWM, BALOCHISTAN REGARDING DATA FEEDING / VALIDATION, DASHBOARD BALOCHISTAN

The ME&IEC in Balochistan is closely coordinating with the DG Office of OFWM to receive support in uploading and validating data for the Balochistan dashboard. ME&IE Consultants have written two letters to the worthy DG of OFWM Balochistan, the first in January 2022 and the second in February 2022, requesting further intimation to the concerned DDs for support. The DG Office has provided full support in this regard, and the OFWM staff is currently in the process of validating and uploading dashboard data. We hope that this process will be completed 100% very soon.

3.11.4 UPDATED STATUS - VALIDATED DATA OF WATERCOURSES, BALOCHISTAN FOR 03 FINANCIAL YEARS, 2019-20, 2020-21, AND 2021-22.

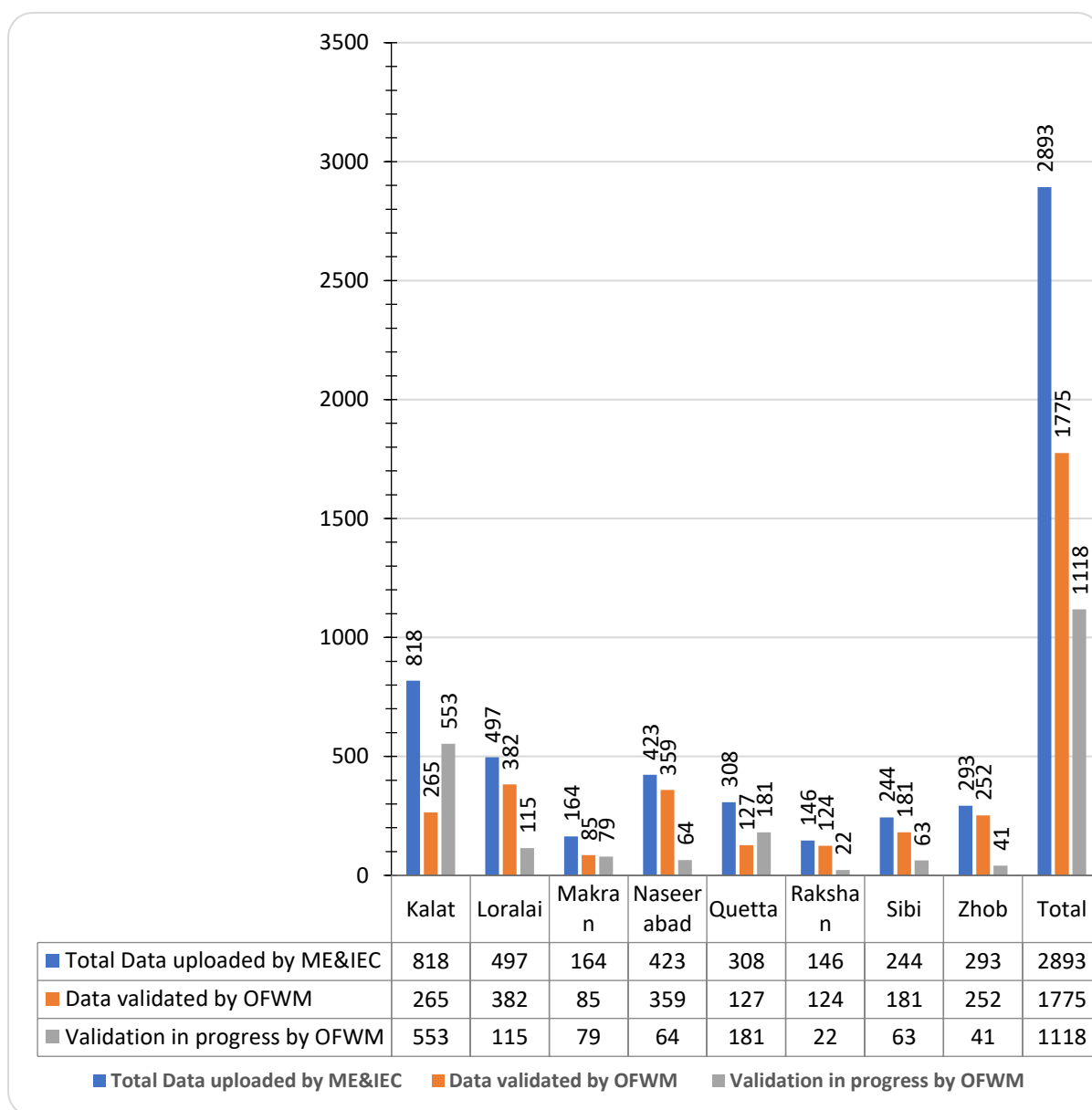
Updated status: validated data of watercourses in Balochistan for three financial years, 2019-20, 2020-21, and 2021-22. The updated table shows

that some districts have been validated 100% by OFWM staff, namely Surab, Duki, Kech, Jaffarabad, Kachi, Kohlu, and Sibi. Most districts have been validated between 75% to 90%, while the progress in some districts, namely Lasbella, Barkhan, Gwadar, JhalMagsi, and Killa Abdullah is nil. The

department is requested to take necessary action in this regard.

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Kalat	Awaran	140	76	22	22	0	0	162	98
Kalat	Kalat	97	0	26	26	37	2	160	28
Kalat	Khuzdar	139	0	17	0	6	3	162	3
Kalat	Lasbela	110	0	35	0	9	0	154	0
Kalat	Mastung	95	86	30	1	13	7	138	94
Kalat	Surab	20	20	11	11	11	11	42	42
Total		601	182	141	60	76	23	818	265
(%)		30%		43%		30%		32%	
Loralai	Barkhan	61	0	0	0	3	0	64	0
Loralai	Duki	27	27	15	15	1	1	43	43
Loralai	Loralai	157	156	44	40	2	0	203	196
Loralai	Musakhail	100	99	86	44	1	0	187	143
Total		345	282	145	99	7	1	497	382
(%)		82%		68%		14%		77%	
Makran	Gwadar	12	0	11	0	0	0	23	0
Makran	Kech	68	68	0	0	0	0	68	68
Makran	Panjgur	68	17	0	0	5	0	73	17
Total		148	85	11	0	5	0	164	85
(%)		57%		0%		0%		52%	
Nasirabad	Jaffarabad	53	53	32	32	56	56	141	141
Nasirabad	JhalMagsi	16	0	6	0	5	0	27	0
Nasirabad	Kachi	81	81	18	18	3	3	102	102
Nasirabad	Nasirabad	33	0	19	19	51	51	103	70
Nasirabad	Sohbatpur	14	14	20	20	16	12	50	46
Total		197	148	95	89	131	122	423	359
(%)		75%		94%		93%		85%	
Quetta	Killa Abdullah	106	0	2	0	2	0	110	0
Quetta	Pishin	96	94	36	0	8	8	140	102
Quetta	Quetta	41	25	10	0	7	0	58	25
Total		243	119	48	0	17	8	308	127
(%)		49%		0%		47%		41%	
Rakhshan	Kharan	23	23	3	0	25	25	51	48
Rakhshan	Nushki	38	38	25	25	11	10	75	74
Rakhshan	Washuk	18	0	2	2	0	0	20	2
Total		79	61	30	27	36	35	146	124
(%)		77%		90%		97%		85%	
Sibi	Dera Bugti	34	0	0	0	10	10	44	10
Sibi	Harnai	23	0	19	15	0	0	42	15
Sibi	Kohlu	41	41	0	0	0	0	41	41

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Sibi	Sibi	33	33	6	6	5	5	44	44
Sibi	Ziarat	54	54	17	15	2	2	73	71
Total		185	128	42	36	17	17	244	181
(%)		69%		86%		100%		74%	
Zhob	Killa Saifullah	123	89	38	38	2	2	163	129
Zhob	Sherani	19	18	8	8	23	22	50	48
Zhob	Zhob	55	55	23	20	2	0	80	75
Total		197	162	69	66	27	24	293	252
(%)		82%		96%		89%		86%	
GRAND TOTAL		1995	1167	581	377	316	230	2893	1775
(%)		58%		65%		73%		61%	



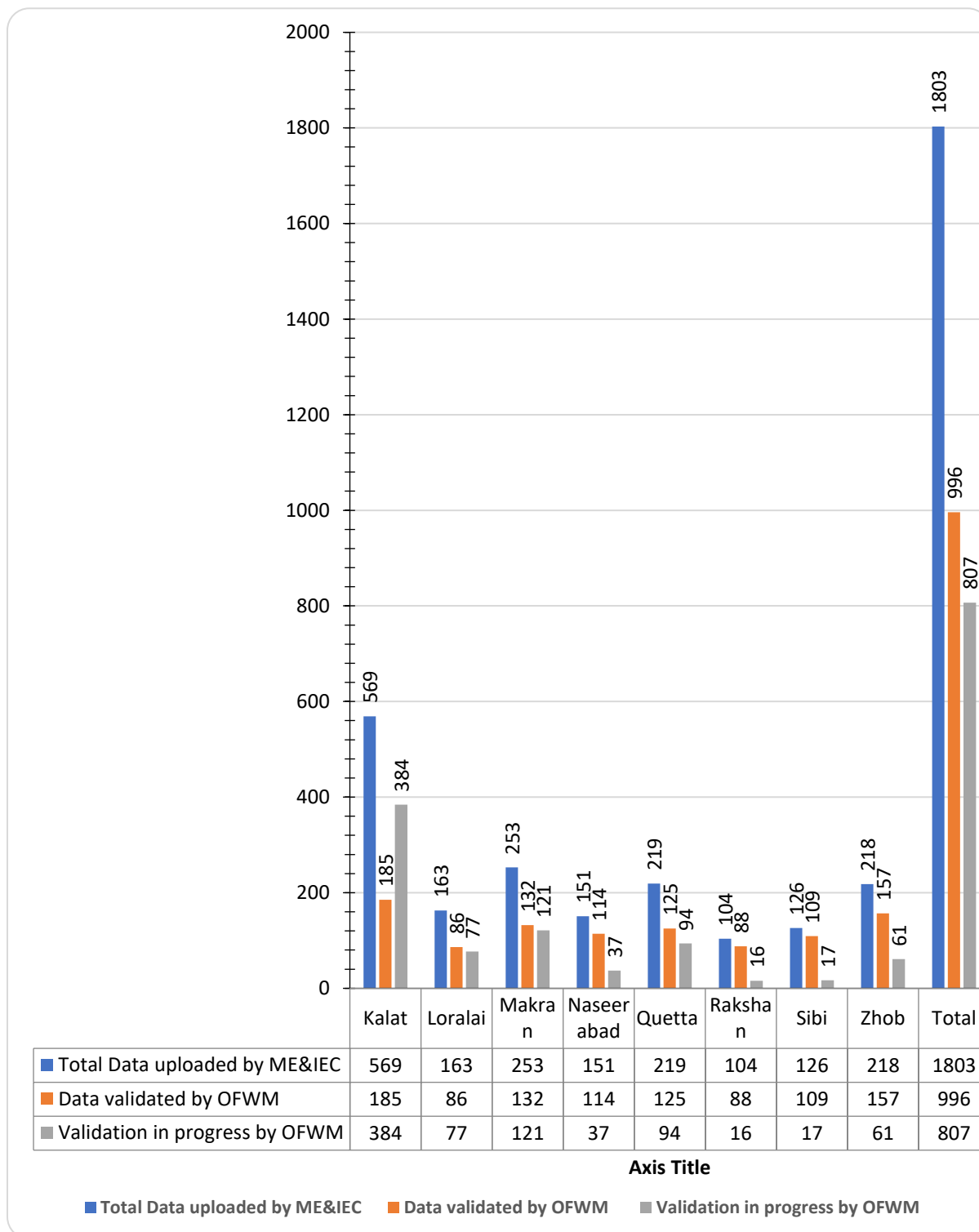
3.11.5 UPDATED STATUS - VALIDATED DATA OF WATER STORAGE TANKS, BALOCHISTAN OF 03 FINANCIAL YEARS, 2019-20, 2020-21 AND 2021-22.

Updated status: validated data of Water Storage Tanks in Balochistan for three financial years, 2019-20, 2020-21, and 2021-22. The updated table shows that some districts have

been validated 100% by OFWM staff, namely Surab, Duki, Musakhail, Jaffarabad, Kachi, Noshki, Dera Bugti, Kohlu, Ziarat and Sherani. Most districts have been validated between 75% to 90%, while the progress in some districts, namely Gawadar, JhalMagsi and Killa Abdullah is nil. The department is requested to take necessary action in this regard.

Division	District	2019-20		2020-21		2021-22		TOTAL	
		Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM	Total Data uploaded by ME&IEC	Validated by OFWM
Kalat	Awaran	12	12	27	27	48	0	87	39
Kalat	Kalat	20	2	32	32	68	1	120	35
Kalat	Khuzdar	20	0	30	0	27	6	77	6
Kalat	Lasbela	20	0	24	0	106	45	150	45
Kalat	Mastung	20	18	32	2	54	11	106	31
Kalat	Surab	3	3	9	9	17	17	29	29
Total		95	35	154	70	320	80	569	185
(%)		37%		45%		25%		33%	
Loralai	Barkhan	15	0	0	0	39	6	54	6
Loralai	Duki	7	7	9	9	13	13	29	29
Loralai	Loralai	22	22	32	3	15	15	69	40
Loralai	Musakhail	11	11	0	0	0	0	11	11
Total		55	40	41	12	67	34	163	86
(%)		73%		29%		51%		53%	
Makran	Gwadar	3	0	4	0	0	0	7	0
Makran	Kech	29	18	24	0	33	33	86	51
Makran	Panjgur	15	15	24	20	121	46	160	81
Total		47	33	52	20	154	79	253	132
(%)		70%		38%		51%		52%	
Nasirabad	Jaffarabad	0	0	8	8	9	9	17	17
Nasirabad	JhalMagsi	7	0	0	0	23	0	30	0
Nasirabad	Kachi	18	18	24	24	40	40	82	82
Nasirabad	Nasirabad	0	0	8	2	0	0	8	2
Nasirabad	Sohbatpur	4	4	8	8	2	1	14	13
Total		29	22	48	42	74	50	151	114
(%)		76%		88%		68%		75%	
Quetta	Killa Abdullah	22	0	34	0	0	0	56	0
Quetta	Pishin	22	22	36	33	61	61	119	116
Quetta	Quetta	9	9	17	0	18	0	44	9
Total		53	31	87	33	79	61	219	125
(%)		58%		38%		77%		57%	
Rakhshan	Kharan	3	3	12	0	14	14	29	17
Rakhshan	Nushki	9	9	23	23	30	30	62	62
Rakhshan	Washuk	4	0	9	9	0	0	13	9
Total		16	12	44	32	44	44	104	88
(%)		75%		73%		100%		85%	
Sibi	Dera Bugti	11	11	0	0	28	28	39	39
Sibi	Harnai	0	0	6	6	12	0	18	6
Sibi	Kohlu	9	9	16	16	0	0	25	25
Sibi	Sibi	8	8	5	5	10	5	23	18
Sibi	Ziarat	4	4	6	6	11	11	21	21
Total		32	32	33	33	61	44	126	109
(%)		100%		100%		72%		87%	

Zhob	Killa Saifulla	20	10	32	32	56	56	108	98
Zhob	Sherani	4	4	6	6	15	15	25	25
Zhob	Zhob	15	10	24	24	46	0	85	34
Total		39	24	62	62	117	71	218	157
(%)		62%		100%		61%		72%	
GRAND TOTAL		366	229	521	304	916	463	1803	996
(%)		63%		58%		51%		55%	



3.12 ICT ASSIGNMENT

The ICT Team remained engaged in different activities related to the ME&IE assignment including development of Android based application, data collection for Dashboard and training of client staff on Dashboard / MIS for the project. During the Month of July 2022 activities completed by ICT Team are summarized below.

3.12.1 Development of Customized Android Based Applications

The ICT Technology Team of ME&IE Consultants NPIWC-II has developed Customized Android Based Applications for data collection. Data entry in this application is done directly by the field monitoring teams of all the zonal offices and is uploaded in the MIS system. The data is being observed and monitored by the ICT team of ME&IE Consultants.

In this regard, customized Android Based Applications have been developed, tested, and installed to Small Dams and Irrigation staff of AJK, Water Management Staff of ICT zone and OFWM staff KP zone.

3.12.2 Data collection of interventions in MIS/GIS database

The activity regarding data collection of Interventions in MIS/GIS database was completed in KP Zone in December 2021.

- Data cleaning and validation has been completed in KP Zone.
- The data collection for the dashboard is in progress in Balochistan. The ICT team is facing problems in data collection because a lot of data is missing which was required by the ICT team for Implementation of MIS Dashboard.

3.12.3 Implementation of MIS Dashboard

The Dashboard has been implemented in AJK, and the progress of Interventions is live on the Dashboard since the 4th of November 2021.

AJK Zone - Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	32	96	74	16	218
Poonch	37	38	78	19	172
Mirpur	38	107	86	49	280
Overall	107	241	238	84	670

So far, Total 670 Watercourses data from AJK zone has been received and available live on Dashboard by which 411 Watercourse has been completed & 169 watercourses are under progress. Due to farmers' un-willingness 90 Work Orders have been cancelled till now. Detailed summary attached as **Annex-G**.

AJK Zone - Water Storage Tank Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
MZD	35	61	82	5	183
Poonch	13	48	142	91	294
Mirpur	2	16	44	21	83
Overall	50	125	268	117	560

560 Water Storage Tanks data received from AJK zone and is available live on Dashboard by which 305 Water Storage Tank has been completed and 171 WSTs are under progress. Due to the unwillingness of farmers there 84 WST work orders have been cancelled till now. Detailed summary attached as **Annex-H**.

The Dashboard has also been implemented in KP Zone and progress of completed schemes is live on the Dashboard since 11th March 2022.

KP Zone - Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur Agency	3	19	28	13	63
Bannu	73	35	93	28	229
D.I Khan	417	12	93	0	522
Hazara	86	61	141	42	330
Khyber Agency	6	13	6	0	25
Kohat	98	39	57	6	200
Kurram Agency	3	5	2	0	10
Malakand	178	167	421	9	775
Mardan	102	59	93	7	261
M. Agency	4	26	13	0	43
N.W Agency	2	3	0	0	5
Orakzai Agency	0	1	0	0	1
Peshawar	136	84	88	8	316
S.W Agency	3	12	13	0	28
Overall	1111	536	1048	113	2808

KP zone currently 2808 total watercourses data live on Dashboard and by which 2465 schemes have been completed and 338 schemes are under progress. Due to the unwillingness of farmers 05 Schemes work order has been cancelled till to date. Detailed Summary attached as **Annex-I**.

KP Zone - WST Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bajaur	1	9	6	1	17
Bannu	12	10	23	2	47
D. I. Khan	79	6	19	0	104
Hazara	28	44	78	6	156
Khy. Agency	1	9	6	0	16
Kohat	29	17	32	1	79
Kurram Agency	1	1	0	0	2
Malakand	73	89	147	1	310
Mardan	15	8	26	3	52
M. Agency	1	36	4	0	41
Orakzai Agency	0	2	0	0	2
Peshawar	36	25	61	6	128
S.W Agency	0	15	14	0	29
N.W Agency	0	8	5	0	13
Overall	276	279	421	20	996

KP zone currently 996 total WST data live on Dashboard and by which 871 schemes have been completed and 125 WSTs are under progress. Detailed Summary attached as **Annex-J**.

ICT Watercourses Data Summary			
Division	2020-21	2021-22	Overall
ICT	20	14	34
Overall	20	14	34

ICT zone so far 34 watercourse schemes have been initiated in this zone and all 34 have been completed till now.

Balochistan Zone – Watercourses Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Kalat	546	132	211	889
Loralai	332	100	123	555
Makran	151	34	5	190
Nasirabad	193	106	174	473
Quetta	236	33	68	337
Rakhshan	124	57	54	235
Sibi	176	49	83	308
Zhob	195	64	73	332
Overall	1953	575	791	3319

Balochistan zone currently has 3319 total watercourses data live on Dashboard and by which 2045 schemes have been completed and remaining 1274 are under progress. Detailed Summary attached as **Annex-K**.

Balochistan Zone – WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Kalat	91	145	274	510
Loralai	54	56	103	213
Makran	48	56	109	213
Nasirabad	25	46	76	147
Quetta	52	51	76	179
Rakhshan	26	66	57	149
Sibi	34	33	61	128
Zhob	35	61	114	210
Overall	365	514	870	1749

Balochistan zone currently has 1749 total Water Storage Tank data live on Dashboard and by which 899 Water Storage Tanks have been completed and remaining 850 WSTs are under progress. Detailed Summary attached as **Annex-L**.

Punjab Zone – Watercourses Data Summary					
Division	2019-20	2020-21	2021-22	2022-23	Overall
Bahawalpur	182	189	317	17	705
D.G Khan	154	81	261	0	496
Faisalabad	91	59	199	38	387
Gujranwala	65	30	100	0	195
Gujrat	52	28	119	0	199
Lahore	77	47	122	9	255
Multan	172	83	307	0	562
Sahiwal	95	92	157	0	344
Sargodha	108	89	355	3	555
Overall	996	698	1937	67	3698

Punjab Zone currently has 3698 total Watercourses data live on Dashboard and all schemes are completed. There's also data missing in some districts and the ICT team is in close coordination with the Punjab OFWM Department to fill the missing data from concerned districts. Detailed Summary attached as **Annex-M**.

Punjab Zone – WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Bahawalpur	23	46	91	160
D.G Khan	25	30	25	80
Faisalabad	24	48	57	129
Gujranwala	0	4	2	6
Gujrat	2	10	29	41
Khushab	2	7	19	28
Lahore	0	9	5	14
Multan	16	25	26	67
Rawalpindi	0	174	194	368
Sahiwal	9	15	15	39
Sargodha	4	25	28	57
Overall	105	393	491	989

Punjab Zone currently has 989 total Water Storage Ponds data live on Dashboard and all schemes are completed. There's also data missing in some districts and the ICT team is in close coordination with the Punjab OFWM Department to fill the missing data from the concerned districts. Detailed Summary attached as **Annex-N**.

GB - Watercourse Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Gilgit	180	236	29	445
Skurdu	108	231	25	364
Overall	288	467	54	809

GB Zone currently has 809 total Watercourse data live on Dashboard and all schemes are completed. Detailed Summary attached as **Annex-O**.

GB - WST Data Summary				
Division	2019-20	2020-21	2021-22	Overall
Gilgit	83	95	22	200
Skurdu	35	82	11	128
Overall	118	177	33	328

GB Zone currently has 328 total Water Storage Tanks data live on Dashboard and all schemes are completed. Detailed Summary attached as **Annex-P**.

CHAPTER 4: QUARTERLY WORK PLAN- ACTIVITIES (OCTOBER 2022 TO DECEMBER 2022)

The ME&IE Consultants' activities initiating during the 4th Quarter of year 2022 (1st October 2022 to 31st December 2022) are listed below. A tentative Work Plan for 4th Quarter of the year 2022 (1st October 2022 to 31st December 2022) showing time span detail is given as **Annex-A**.

Pre Field-Activities

- Preparation for 3rd-Phase Baseline Survey (Finalization of MTs)
- Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey
- Training of Field Staff for 3rd-Phase Baseline Survey

Field Activities

- Regular Monitoring of Interventions in the Field
- Data collection of the interventions in the field for Baseline and Impact survey
- Baseline Survey stage - 3
- Online data entry in android-based application

ICT Assignment

- Development / Improvement of website of NPIWC-II
- Monitoring online data collection and Data entry
- Monitoring Android based Mobile Application under implementation by field staff.
- Data collection of interventions in MIS/GIS database
- Capacity Building Trainings / Refresher of Departments
- Data Cleaning, Development & Launching of Dashboard for Client Offices

Coordination

- Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues
- Meeting of DTLs with respective DTL of P C & concerned OFWM Departments
- ME&IE Consultants Internal Meetings
- Meetings of TL with NPC and OFWM Departments regarding Project Progress /

- Issues
- Meeting of DTLs with respective DTL of PC & concerned OFWM Departments
 - ME&IE Consultants Internal Meetings

Deliverables

- Monthly Monitoring Report
- Quarterly Monitoring Report (January-March 2022)
- Mid-Line Monitoring & Impact Evaluation Report
- Preparation of Baseline Survey Report 2nd-Phase
- Consolidation of Baseline Survey Phase-I & II Reports

The detail of deliverables of ME&IE Consultants with the timelines is as under:

Document	Status
Draft Inception Report	Submitted
Final Inception Report	Submitted
Monthly Monitoring Report-First (DEC 2020-JAN 2021)	Submitted
Monthly Monitoring Report-Second (FEB 2021)	Submitted
Monthly Monitoring Report-Third (MAR 2021)	Submitted
Quarterly Monitoring & Evaluation Report-First (JAN-MAR 2021)	Submitted
Monthly Monitoring Report-Fourth (APR 2021)	Submitted
Monthly Monitoring Report-Fifth (MAY 2021)	Submitted
Monthly Monitoring Report-Sixth (JUNE 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Second (APR-JUN 2021)	Submitted
Monthly Monitoring Report-Seventh (JULY)	Submitted
Monthly Monitoring Report-Eighth (AUG 2021)	Submitted
Annual Monitoring & Evaluation Report (1 st)	Submitted
Baseline Survey Report (Final Draft)	Submitted
Monthly Monitoring Report-Ninth (SEPTEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Third	Submitted

Document	Status
(JULY - SEPTEMBER 2021)	
Monthly Monitoring Report-Tenth (OCTOBER 2021)	Submitted
Monthly Monitoring Report-Eleventh (NOVEMBER 2021)	Submitted
Monthly Monitoring Report-Twelfth (DECEMBER 2021)	Submitted
Quarterly Monitoring & Evaluation Report-Fourth Quarter year 2021 (OCTOBER – DECEMBER 2021)	Submitted
Monthly Monitoring Report-Thirteenth (JANUARY 2022)	Submitted
Monthly Monitoring Report-Fourteenth (FEBRUARY 2022)	Submitted
Monthly Monitoring Report-Fifteen (MARCH 2022)	Submitted
Quarterly Monitoring & Evaluation Report-First Quarter year 2022 (JANUARY – MARCH 2022)	Submitted
Monthly Monitoring Report-Sixteen (APRIL 2022)	Submitted
Monthly Monitoring Report-Seventeenth (May 2022)	Submitted
Monthly Monitoring Report-Eighteenth (June 2022)	Submitted
Quarterly Monitoring & Evaluation Report-2 nd Quarter year 2022 (APRIL – JUNE 2022)	Submitted
Annual Monitoring & Evaluation Report (2 nd) Jul 2021-June 2022	Submitted
Monthly Monitoring Report-Nineteenth (July 2022)	Submitted
Monthly Monitoring Report-Twentieth (August 2022)	Submitted
Monthly Monitoring Report-Twenty First (September 2022)	Submitted
Quarterly Monitoring & Evaluation Report-3 rd Quarter year 2022 (JUL – SEP 2022)	Submitted
Monthly Monitoring Report-Twenty Second (October 2022)	Submitted
Monthly Monitoring Report-Twenty Third (November 2022)	Submitted
Monthly Monitoring Report-Twenty Fourth (December 2022)	Submitted

Document	Status
Monthly Monitoring Report-Twenty Fifth (January 2023)	Submitted
Monthly Monitoring Report-Twenty Sixth (February 2023)	Report in hand to be submitted within stipulated time
Quarterly Monitoring & Evaluation Report-1 st Quarter year 2023 (JAN – MAR 2023)	Submitted
Baseline Survey Report Phase-II (Zero Draft)	Submitted
Baseline Survey Report Phase-II (Second Draft)	Submitted
Survey Manual (Final version) (Special Reports)	Submitted
Baseline Survey Report Phase-II (Updated version WC)	Submitted
Baseline Survey Report Phase-II (Draft version of WSTs)	Submitted
Mid-Line Monitoring & Impact Evaluation Report	Submitted
Consolidation of Baseline Survey Phase-I & II Reports	Under-preparation
Special Reports submitted: 1) Monitoring Tools 2) Survey Manual 3) PAM 4) Working Paper on Technology and Methodology for Implementation of Android Based Field Progress Data Collection and GIS Based Progress Monitoring Analytical Dashboard. 5) Baseline-Endline Survey Manuals 6) Android Application Manual 7) PMIS Dashboard Manual	Submitted

Deliverables/Reporting Requirements are placed at **Annex-D**.

Matrix of Responsibilities

The Matrix of Responsibilities is placed at **Annex-B**.

CHAPTER 5: ISSUES / BOTTLENECKS

The ME&IE Consultants are continuously following constraints for timely initiating the activities:

- Due to non-availability of NWMC (NESPAK) deliverables/reports/data, ME&IE Consultants are facing hurdles to evaluate working of NWMC. In this regard the cooperation of NWMC and respective Directorates as well as client is desirable.
- Non availability of Technical Sanctions of the watercourses required for performing baseline surveys as well as the required obligatory followed surveys including Midline and end line
- Non-availability of complete up-to-date inventory / data of all interventions from the Client, Provincial Agricultural Departments & NWMC (NESPAK) till to date.
- Irregularity in the fund releases are also one of the key hurdles towards the completion of the required obligatory project assignments, timely.

ANNEXES A to P

ANNEX-A: TENTATIVE WORK PLAN

ANNEX-A: TENTATIVE QUARTERLY WORK PLAN (JANUARY TO MARCH 2023)

TENTATIVE WORK PLANNED FOR THE QUARTER (January 2023 To March 2023)												Legend	
												Activity starts	↓
												Activity Ends	↓
												Activity Span	---
No.	ACTIVITIES	3 Months-Year 2023 (Weeks)											
		January				February				March			
		WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4	WK-1	WK-2	WK-3	WK-4
1	Pre-Field Activities												
1.1	Preparation for 3rd-Phase Baseline Survey (Finalization of MTs)												
1.2	Internal Meetings of ME&IE Consultants' Zonal Offices for development of Methodology for 3rd Phase Baseline Survey												
1.3	Training of Field Staff for 3rd-Phase Baseline Survey												
2	Field Activities												
2.1	Regular Monitoring of Interventions in the Field												
2.2	Data collection of the interventions in the field												
2.3	Baseline Survey stage - 3												
2.4	Online data entry in android based application												
3	ICT Assignment												
3.1	Development / Improvement of website of NPIWC-II												
3.2	Monitoring online data collection and Data entry												
3.3	Monitoring Android based Mobile Application under implementation by field staff.												
3.4	Data collection of interventions in MIS/GIS database												
3.5	Capacity Building Trainings / Refresher of Departments												
3.6	Data Cleaning, Development & Launching of Dashboard for Client Offices												
4	Coordination												
4.1	Meetings of TL with NPC and OFWM Departments regarding Project Progress / Issues												
4.2	Meeting of DTLs with respective DTL of PC & concerned OFWM Departments												
4.3	ME&IE Consultants Internal Meetings												
5	Deliverable												
5.1	Monthly Monitoring Report												
5.2	Quarterly Monitoring Report (Oct-Dec 2022)												
5.3	Mid-Line Monitoring & Impact Evaluation Report												
5.4	Preparation of Baseline Survey Report 2nd-Phase												
5.5	Consolidation of Baseline Survey Phase-I & II Reports												

ANNEX - B: MATRIX OF RESPONSIBILITIES

MATRIX OF RESPONSIBILITIES

LEGEND	
●	Primary Responsibility
⊙	Secondry Responsibility
○	Assistance

SR. NO.	DELIVERABLE / ACTIVITIES	NPC-FPMU	Agriculture Dept. (CEMVI)	Project Consultants	ME&IE Consultants
1	Provision of Pre-requisite data of project components for starting of Field Activities: <ul style="list-style-type: none"> • Organization of Water Users Associations, • Watercourses Improvement, • Water Storage Tanks, • Laser Land Levelers, 	○	●	-	-
2	Certification of operational documents of the project, <ul style="list-style-type: none"> • Design, cost estimates, completion reports of watercourses, • Design, cost estimates, completion reports of water storage tanks, 	○	⊙	●	-
3	Undertake baseline, midline and endline surveys of the project activities/interventions in all the project areas.	-	-	-	●
4	Develop monitoring strategy, framework and Result Based Monitoring (RBM) indicators,	-	-	-	●
5	Assessing the water saving per annum on watercourse and water storage tanks as well as aggregate due to the project interventions.	-	-	-	●
6	Assessing the improvement in water availability due to provision of conveyance system.	-	-	-	●
7	Assessing the economic benefits to the agriculture in terms of increase in yield, irrigated area, cropping pattern, cropping intensity, farm income and employment in command area of watercourses and water storage tanks.	-	-	-	●
8	Assessing the extent of community mobilization, financial and administrative sustainability of Water Users' Associations and ensuring the maintenance of watercourses, water storage tanks and laser land levelers.	-	-	-	●
9	Economic Impact of project interventions.	-	-	-	●
10	Carryout impact evaluation of the project investment on the economy and stakeholders.	-	-	-	●
11	Preparation of Monthly, Quarterly and Annual Monitoring, Evaluation and Validation Reports of the project activities.	-	-	-	●
12	Develop a website containing information of facilities and services, applications, procedures, watercourses, water storage tanks, and laser levelers database etc. (Maintaining website should be the responsibility of project staff).	-	-	-	●
13	Provide technical support for the development of a custom-designed mobile application (Android) to capture on-site project progress, geo tagged photos; should be synchronized with the central MIS/GIS database and application for instant reporting and feedback to the	-	-	-	●

ANNEX-C: MONITORING LOG-FRAME

ANNEX-C: MONITORING LOG-FRAME

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
C1: Organization of Water Users' Associations (WUAs)	Reactivation of existing / organization of water users' associations. Ensuring one on each target watercourse. Total WUAs ensured 47,278.	a) Community mobilization at 47,278 watercourses	a) Total 47,278 WUAs reactivated / established/registered	a) Right of way of 47,278 watercourses available b) Skilled and unskilled labour required for watercourse improvement available c) Construction material for civil works of watercourses procured d) Alternate arrangement for water conveyance during construction made e) Watercourse improved	a) Disputes among the water users settled b) Farmers' branched improved c) Water allocation made amicably d) Maintenance of watercourses, WST and laser units done e) Cooperation among farmers increased	a) 47,278 watercourses improved and 15 percentage points conveyance losses reduced b) Litigation among farmers reduced	a) The functioning of the WUAs will be established through sample interview surveys of WUAs members twice during the project period

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
C2: Watercourses Improvements	Improvement of 47,278 watercourses on cost sharing basis: 40% farmers in terms of labour, and 60% funded by project.	a) Establishment of 47,278 Water users' associations (WUAs); b) Registration of 47,278 WUAs; c) Improvement and realignment of earthen section of 47,278 watercourses; d) Lining of up to 50% length of 47,278 watercourses either by: <ul style="list-style-type: none"> ● Precast concrete parabolic lining (PCPL) segments, or ● Rectangular brick masonry, or any other method as 	a) 47,278 WCAs established; b) 47,278 WCAs registered; c) 47,278 watercourses improved and lined;	a) Conveyance losses for improved watercourses decreased by about 15 percentage points. b) 1.654 million households benefited from the activity; c) 11.347 million acres served with improved watercourses	a) Increase in cropping intensity on improved watercourses by 5-24%; b) Increase in crop yields. c) Increase in irrigated area d) Increase in agriculture output per unit of water by about 37%	a) Increase in farm income; b) Increase in employment for farm labour; c) Reduction in poverty; d) Enhanced food security for the country.	a) The water flow measurements will be carried out at before and after watercourse improvement on 2-5% sample basis; b) Agriculture survey before and after watercourse improvement on 2-5% sample basis; c) The survey will determine: <ul style="list-style-type: none"> ● Cropping pattern before and after the improvement; ● Cropping intensities before and after improvement;

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		approved by the project					<ul style="list-style-type: none"> • Before and after crop yields; • Before and after employment; <p>d) The difference between before and after will be considered the result of the intervention after netting out the contribution of the growth pattern of the crop sector otherwise.</p>
C3: Construction of Water Storage Tanks (WSTs)	a) Construction of 14,932 water storage tanks	a) 14,932 small farmers mobilized to construct water storage tanks for irrigation b) They agree to contribute	a) 14,932 WSTs constructed b) 14,932 WSTs operated and maintained	a) Water which was otherwise largely going to be wasted is saved b) Irrigation provided at critical stages of the crops	a) More area irrigated b) Increased cropping intensities	a) Increased crop yields b) Increased total crop output quantum c) Increased farm income d) Increased farm employment	a) 2-5% sample of WSTs will be surveyed b) A data collection form will be designed to measure water

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
		40% of the cost c) Agree to first construct the tank with his/her own funds and then received subsidy at 40% on issuance of FCR		c) Flexibility achieved for irrigation			saving due to WSTs c) The forms used for baseline and impact surveys in case of watercourses will also be used for WSTs d) Same data analysis will be carried out here as in case of watercourses.
C4: Provision of Land Leveling Units	a) Provision of 11,610 laser land leveling units to farmers and service providers on a cost sharing basis: 50% by farmer / service provider and	a) 11,610 laser units provided to farmers / service providers; b) Farmers trained in using the units.	a) 11,610 farmers / service providers received PLL units; b) Farmers / service providers received training in using the units.	a) Land leveled on Farmers' / service providers' farms; b) Land leveled on fellow farmers on rent; c) Total 3.483million acres levelled	a) Water application efficiency increased at field level; b) Even germination of seed. c) Field application losses reduced by 10	e) Increased area under irrigated crops; f) Enhanced crop yields g) Increased farm income	a) The land levelling is expected to save irrigation water and result in better and even germination of seeds which can enhance crop yields. The crop yields thus affected

Project subcomponents	Targets	Activities	Outputs	Outcome-1	Outcomes-2	Goals / Impact	Methodology for measuring results
	50% by the project.			by 11,610 units.	percentage points d) Water productivity increased by 24%		<p>will be reflected in agriculture sample surveys.</p> <p>b) 2-4% sample units will be visited by ME&IE Consultants teams after one years of delivery</p> <p>c) The unit will be verified</p> <p>d) Area treated during the year will be collected</p> <p>e) Farmers' feedback collected on quality of the unit, quality of the after-sale service, etc.</p>

ANNEX - D: DELIVERABLES/REPORTING REQUIREMENTS

Deliverables/Reporting Requirements

Sr. No.	Document	Copies	Due
1	Draft Inception Report	8	45 days after the effectiveness of the Consulting services Agreement.
2	Final Inception Report	15	One week after the issuance of comments by the Client on Draft Inception Report
3	Monthly Monitoring Report	10	10 th of the following month
4	Baseline Survey Report	10	4 months after start of the assignment
5	Midline Survey Report	10	In the middle of the assignment
6	Endline Survey Report	10	At the end of the endline survey
7	Quarterly Monitoring and Evaluation Report	10	10 th of the first month of following quarter
8	Annual Monitoring and Evaluation Report	10	During first month of following year
9	Draft Assignment Completion Report	5	At completion of physical works / activities
10	Final Completion Report	25	At completion of works as well as financial transactions
11	Special Reports	10	As and when required

ANNEX - E: CORRESPONDENCE REGARDING DASHBOARD ACTIVITIES IN BALOCHISTAN

**DIRECTORATE GENERAL AGRICULTURE ON FARM WATER MANAGEMENT
BALOCHISTAN QUETTA**

Ph # 081-9211873 Fax # 0819211874

Our Faith, Corruption Free Pakistan

Ref: # 6896-131/2-8/DG/OFWM

Dated Quetta the 13 rd December 2022

To,

1-33 Deputy Director Agriculture On Farm Water Management Quetta/ Pishin/Killa
Abdullah/Chagai/Nushki/Zhob/Barkhan/Musa Khail/ Killa
Saifullah/Duki/Loralai/Sherani/Sibi/Harnai/Ziarat/Kohlu/Nasirabad/Jaffarabad/
JhalMagsi/Sohbatpur/Kalat/Surab/Mastung/Khuzdar/Awaran/Kharan/Washuk/ Kech
/Lasebla/Panjgur/Dera Bugti/Gawadar/Bolan (Kachhi)/.

Subject: - **PROVISION OF MISSING RECORD OF NPIWC-II TO M&E
CONSULTANT FOR DASHBOARD.**

It refers to the subject noted above and to state ME&IE consultant requires missing data for dashboard of beneficiaries of those schemes which are executed under NPIWC-II in FY 2019-20, 2020-21 & 2021-22.

Therefore, you are hereby directed to coordinate with the focal person of ME&IE consultant i.e Malik Manzoor Khan Kasi and provide the missing data which requires by them.

The matter is most urgent and most important; no negligence will be tolerated in this case.

Director General Agriculture
On Farm Water Management
Balochistan Quetta

Copy to the:-

- ✓ 1. Deputy Team Leader ME&IE consultant for information.
2. Malik Manzoor Kasi, Focal Person ME&IE consultant for information.

Director General Agriculture
On Farm Water Management
Balochistan Quetta

CS Scanned with CamScanner



MONITORING, EVALUATION & IMPACT EVALUATION CONSULTANTS
NATIONAL PROGRAM FOR IMPROVEMENT OF WATERCOURSES IN PAKISTAN: PHASE-II (NPIWC-II)
Federal Project Management Unit (FPMU) | Ministry of National Food Security & Research, Islamabad | PAKISTAN
www.npiw2.org.pk | info@g3jv.com

Ref: ME&IEC/NPIWC-II/BZ/53

Dated: 06th February 2023

The Director General, OFWM, Balochistan,
Rani Bagh, Sariab Road, Quetta.

Sub: **Monitoring, Evaluation, and Impact Evaluation (ME&IE) Consultants for National Program for Improvement of Water Courses in Pakistan: Phase-II – Balochistan Zone.**

DASHBOARD OF NPIWC-II, BALOCHISTAN COMPONENT.

Dear sir,

In continuation to our letter No., ME&IEC/NPIWC-II/BZ/51, dated 26th January 2023 on the above-mentioned subject, I pleased to inform you that ME&IE Consultants have completed Phase-I, covering five divisions included Sibi, Naseerabad, Zhob, Loralai and Quetta as planned. The ME&IE Consultants are now proceeding to the remaining zones to accomplish Phase-II as detailed below:

1. Mr. Manzoor Kasi, Focal Person, ME&IEC (Kalat and Makran Divisions) from 08th to 12th February 2023
2. Mr. Naseeb Jan, FTI, ME&IEC (Rakshan Division) from 8th to 11th February 2023

Our teams will provide support to the DDs/Concerned staff in regard to the data uploading to the dashboard, Balochistan. During the visits, our team will work closely with the DDs and their team to ensure the data collected is accurate and up-to-date.

Your good office is requested to give necessary directions to all DDs/Concerned staff for their support and cooperation with ME&IE Consultants with full commitment so that this task could be completed in per plan.

We look forward to working with you to achieve our common goal.

Assuring you our best services at all times.

Sincerely,

Rizwan Ali
Deputy Team Leader
ME&IE Consultants for NPIWC-II
Zonal Office, Quetta,
Balochistan, Zonal Office, Quetta.

M
8/2/2023

CC:

- Authorized Representative of JV/Director G3 Engineering Consultants Pvt Ltd. Islamabad
- The Deputy Project Coordinator, FPMU, NPIWC-II, Islamabad.
- Dr. Usman Mustafa – Team Leader, ME&IE Consultants, NPIWC-II, Islamabad
- Mr. Manzoor Kasi, Focal Personal/FTI, ME&IE Consultants, Balochistan, Quetta
- Mr. Rizwan Saleem, IT Specialist, ME&IE Consultants, Islamabad
- Office Copy

A Joint Venture of
G3 Engineering Consultants (Pvt.) Ltd.



Zonal Office:
House No. 40, Arbab Karam Khan Road, Khair
Baksh Marni Street, Quetta.
Ph: (+92-81) 2450803



ANNEX - F: DISTRICT WISE UNIT OF INTERVENTIONS DATA COLLECTED AND REPORTED TILL REPORTING MONTH

District	Baseline		Impact		PLL
	WC	WST	WC	WST	
Attock	-	6	-	5	-
Bahawalnagar	10	3	-	-	11
Bahawalpur	1	1	-	-	-
Bhakkar	3	5	3	5	5
Chakwal	-	2	-	2	-
Chiniot	1	-	-	-	-
Dera Ghazi Khan	3	3	3	3	8
Faisalabad	3	1	-	-	11
Gujranwala	7	1	7	1	7
Gujrat	6	1	-	1	6
Hafizabad	10	3	9	-	5
Jhang	4	1	-	-	5
Jhelum	-	1	-	-	-
Kasur	3	2	2	2	4
Khanewal	7	1	-	-	7
Khushab	-	1	-	1	8
Lahore	1	-	-	-	-
Lodhran	15	1	-	-	8
Layyah	-	1	-	-	-
Mandi Bahauddin	4	2	1	-	-
Multan	9	5	-	-	8
Muzaffargarh	6	2	6	2	-
Nankana Sahib	3	2	-	-	5
Narowal	1	-	-	-	-
Okara	15	1	4	-	7
Pakpattan	6	1	-	-	-
Rahim Yar Khan	11	2	-	-	1
Rajanpur	1	-	-	-	-
Rawalpindi	-	4	-	-	-
Sahiwal	6	1	4	-	8
Sargodha	5	2	-	-	6
Sheikhupura	8	2	-	-	7
Sialkot	5	-	-	-	5
Toba Tek Singh	5	2	-	-	8
Vehari	6	-	-	-	8
Grand Total	165	60	39	22	148

ANNEX - G: WATERCOURSES DATA SUBMISSIONS

Watercourses Data Submissions - Summary								
Division	District	Completed	Work Order Cancelled	Under Progress				Overall
				1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Muzaffarabad	Muzaffarabad	71	5	2	5	13	12	108
	Jhelum	18	0	6	0	14	6	44
	Neelum	27	12	11	3	13	0	66
Muzaffarabad Total		116	17	19	8	40	18	218
Poonch	Poonch	34	10	4	1	2	3	54
	Bagh	24	14	1	0	4	6	49
	Haveli	6	9	2	0	4	8	29
	Sudhnoti	22	16	1	0	1	0	40
Poonch Total		86	49	8	1	11	17	172
Mirpur	Mirpur	71	2	0	0	4	23	100
	Bhimber	106	0	1	0	0	10	117
	Kotli	32	22	5	0	1	3	63
Mirpur Total		209	24	6	0	5	36	280
Overall		411	90	33	9	56	71	670

ANNEX - H: WST/WHs DATA SUBMISSIONS

WST/WHs Data Submissions - Summary						
Division	District	Completed	Work Order Cancelled	Under Progress		Overall
				Work Order Issued	Work Order Pending	
Muzaffarabad	Muzaffarabad	134	3	6	13	156
	Jhelum	11	0	13	3	27
Muzaffarabad Total		145	3	19	16	183
Poonch	Poonch	48	19	5	22	94
	Bagh	37	18	5	21	81
	Haveli	15	16	14	27	72
	Sudhnoti	12	13	15	7	47
Poonch Total		112	66	39	77	294
Mirpur	Mirpur	10	3	2	6	21
	Bhimber	11	0	0	8	19
	Kotli	27	12	1	3	43
Mirpur Total		48	15	3	17	83
Overall		305	84	61	110	560

ANNEX - I: KP - WATERCOURSE DATA SUBMISSION - SUMMARY

KP - Watercourse Data Submission - Summary								
Division	District	Completed	Work Order Cancelled	Under Progress				Overall
				1st Milestone	2nd Milestone	Work Ord Issued	Work Ord Pending	
Bajaur Agency	Bajaur	46	0	5	0	11	1	63
Bajaur Agency Total		46	0	5	0	11	1	63
Bannu	Bannu	94	0	0	14	0	0	108
Bannu	Lakki Marwat	120	0	1	0	0	0	121
Bannu Total		214	0	1	14	0	0	229
D.I. Khan	D.I. Khan	482	0	2	0	0	0	484
D.I. Khan	Tank	38	0	0	0	0	0	38
D.I. Khan Total		520	0	2	0	0	0	522
Hazara	Abbottabad	25	0	1	1	0	0	27
Hazara	Battagram	38	0	3	0	0	0	41
Hazara	Haripur	66	0	0	7	0	0	73
Hazara	Lower Kohistan	7	0	0	0	13	0	20
Hazara	Mansehra	89	0	0	40	1	1	131
Hazara	Torghar	26	0	0	0	1	0	27
Hazara	Upper Kohistan	9	0	0	0	0	0	9
Hazara	Kolai Pallas	2	0	0	0	0	0	2
Hazara Total		262	0	4	48	15	1	330
Khyber Agency	Khyber	19	0	0	0	5	1	25
Khyber Agency Total		19	0	0	0	5	1	25
Kohat	Hangu	42	0	0	0	0	0	42
Kohat	Karak	67	0	0	1	0	0	68
Kohat	Kohat	90	0	0	0	0	0	90
Kohat Total		199	0	0	1	0	0	200
Kurram Agency	Kurram	9	0	0	1	0	0	10
Kurram Agency Total		9	0	0	1	0	0	10
Malakand	Buner	94	0	0	0	0	0	94
Malakand	Chitral	88	0	1	1	1	0	91
Malakand	Lower Dir	63	0	5	13	22	4	107
Malakand	Malakand	77	0	0	1	7	0	85
Malakand	Shangla	39	0	0	0	0	0	39
Malakand	Swat	165	3	29	54	1	10	262
Malakand	Upper Dir	85	0	0	12	0	0	97
Malakand Total		611	3	35	81	31	14	775
Mardan	Mardan	129	0	1	1	4	0	135
Mardan	Swabi	93	0	1	32	0	0	126
Mardan Total		222	0	2	33	4	0	261
Mohmand Agency	Upper Mohmand	32	0	0	0	0	0	32
Mohmand Agency	Lower Mohmand	11	0	0	0	0	0	11
Mohmand Agency Total		43	0	0	0	0	0	43
Orakzai Agency	Orakzai	1	0	0	0	0	0	1
Orakzai Agency Total		1	0	0	0	0	0	1
Peshawar	Charsadda	126	1	0	0	13	0	140
Peshawar	Nowshera	95	0	0	0	0	1	96
Peshawar	Peshawar	65	1	3	3	3	5	80
Peshawar Total		286	2	3	3	16	6	316
S.W Agency	S.W Agency	28	0	0	0	0	0	28
S.W Agency Total		28	0	0	0	0	0	28
N.W Agency	N.W Agency	5	0	0	0	0	0	5
N.W Agency Total		5	0	0	0	0	0	5
Overall		2465	5	52	181	82	23	2808

ANNEX - J: KP - WST DATA SUBMISSION - SUMMARY

KP - WST Data Submission - Summary							
Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Bajaur Agency	Bajaur	16	0	0	1	0	17
Bajaur Agency Total		16	0	0	1	0	17
Bannu	Bannu	11	0	1	0	0	12
Bannu	Lakki Marwat	35	0	0	0	0	35
Bannu Total		46	0	1	0	0	47
D.I. Khan	D.I. Khan	81	1	1	5	0	88
D.I. Khan	Tank	16	0	0	0	0	16
Dera Ismail Khan Total		97	1	1	5	0	104
Hazara	Abbottabad	18	0	0	0	0	18
Hazara	Battagram	23	0	0	4	0	27
Hazara	Haripur	40	0	0	0	0	40
Hazara	Kolai Pallas	2	0	0	2	0	4
Hazara	Lower Kohistan	0	0	0	0	1	1
Hazara	Mansehra	35	1	2	4	1	43
Hazara	Torghar	15	0	0	0	0	15
Hazara	Upper Kohistan	7	0	0	0	1	8
Hazara Total		140	1	2	10	3	156
Khyber Agency	Khyber	10	0	0	6	0	16
Khyber Agency Total		10	0	0	6	0	16
Kohat	Hangu	14	0	0	0	0	14
Kohat	Karak	60	0	0	0	0	60
Kohat	Kohat	5	0	0	0	0	5
Kohat Total		79	0	0	0	0	79
Kurram Agency	Kurram	2	0	0	0	0	2
Kurram Agency Total		2	0	0	0	0	2
Malakand	Buner	43	0	0	0	0	43
Malakand	Chitral	21	0	0	0	0	21
Malakand	Lower Dir	15	2	2	9	0	28
Malakand	Malakand	24	0	0	0	0	24
Malakand	Shangla	21	0	0	1	0	22
Malakand	Swat	95	3	6	29	3	136
Malakand	Upper Dir	33	1	0	1	1	36
Malakand Total		252	6	8	40	4	310
Mardan	Mardan	31	0	0	1	0	32
Mardan	Swabi	18	0	2	0	0	20
Mardan Total		49	0	2	1	0	52
Mohmand Agency	Mohmand	41	0	0	0	0	41
Mohmand Agency Total		41	0	0	0	0	41
Orakzai Agency	Orakzai	2	0	0	0	0	2
Orakzai Agency Total		2	0	0	0	0	2
Peshawar	Charsadda	13	0	0	1	0	14
Peshawar	Nowshera	62	0	0	0	0	62
Peshawar	Peshawar	25	3	2	13	9	52
Peshawar Total		100	3	2	14	9	128
S.W Agency	S.W Agency	29	0	0	0	0	29
S.W Agency Total		29	0	0	0	0	29
N.W Agency	N.W Agency	8	0	0	5	0	13
N.W Agency Total		8	0	0	5	0	13
Overall		871	11	16	82	16	996

ANNEX - K: BALOCHISTAN - WATERCOURSE DATA SUBMISSION - SUMMARY

Balochistan - Watercourse Data Submission - Summary							
Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	TS Issued	TS Pending	
Kalat	Awaran	111	0	0	0	22	133
Kalat	Kalat	124	0	0	0	96	220
Kalat	Khuzdar	142	0	0	0	3	145
Kalat	Lasbela	146	0	0	0	29	175
Kalat	Mastung	115	0	0	0	53	168
Kalat	Surab	0	0	0	0	40	40
Kalat Total		638	0	0	0	243	881
Loralai	Barkhan	55	0	0	0	0	55
Loralai	Duki	0	0	0	42	1	43
Loralai	Loralai	155	0	0	0	158	313
Loralai	Musakhail	142	0	0	0	0	142
Loralai Total		352	0	0	42	159	553
Makran	Gwadar	20	0	0	0	0	20
Makran	Kech	56	0	0	8	0	64
Makran	Panjgur	74	0	0	2	30	106
Makran Total		150	0	0	10	30	190
Nasirabad	Jaffarabad	85	0	0	0	56	141
Nasirabad	Jhal Magsi	21	0	0	0	0	21
Nasirabad	Kachi	0	0	0	17	62	79
Nasirabad	Nasirabad	52	0	0	0	108	160
Nasirabad	Sohbatpur	0	0	0	0	72	72
Nasirabad Total		158	0	0	17	298	473
Quetta	Killa Abdullah	105	0	0	0	0	105
Quetta	Pishin	117	0	0	0	46	163
Quetta	Quetta	39	0	0	1	28	68
Quetta Total		261	0	0	1	74	336
Rakhshan	Chaghi	75	0	0	0	0	75
Rakhshan	Kharan	26	0	0	0	11	37
Rakhshan	Nushki	0	0	0	38	59	97
Rakhshan	Washuk	18	0	0	0	2	20
Rakhshan Total		119	0	0	38	72	229
Sibi	Dera Bugti	30	0	0	0	64	94
Sibi	Harnai	40	0	0	0	0	40
Sibi	Kohlu	0	56	0	0	0	56
Sibi	Sibi	33	0	0	0	20	53
Sibi	Ziarat	60	0	0	1	0	61
Sibi Total		163	56	0	1	84	304
Zhob	Killa Saifullah	123	0	0	0	72	195
Zhob	Sherani	25	0	0	1	36	62
Zhob	Zhob	56	0	0	12	7	75
Zhob Total		204	0	0	13	115	332
Overall		2045	56	0	122	1075	3298

ANNEX - L: BALOCHISTAN - WST DATA SUBMISSION - SUMMARY

Balochistan - WST Data Submission - Summary							
Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	TS Issued	TS Pending	
Kalat	Awaran	55	0	0	0	29	84
Kalat	Kalat	83	0	0	0	29	112
Kalat	Khuzdar	68	0	0	0	8	76
Kalat	Lasbela	76	0	0	0	32	108
Kalat	Mastung	89	0	0	1	11	101
Kalat	Surab	0	0	0	0	29	29
Kalat Total		371	0	0	1	138	510
Loralai	Barkhan	47	0	0	0	6	53
Loralai	Duki	0	0	0	16	13	29
Loralai	Loralai	48	0	0	0	53	101
Loralai	Musakhail	26	0	0	0	0	26
Loralai Total		121	0	0	16	72	209
Makran	Gwadar	7	0	0	0	0	7
Makran	Kech	35	0	0	0	21	56
Makran	Panjgur	26	0	0	0	124	150
Makran Total		68	0	0	0	145	213
Nasirabad	Jaffarabad	8	0	0	0	9	17
Nasirabad	Jhal Magsi	24	0	0	0	0	24
Nasirabad	Kachi	0	0	0	13	62	75
Nasirabad	Nasirabad	0	0	0	0	17	17
Nasirabad	Sohbatpur	1	0	0	0	13	14
Nasirabad Total		33	0	0	13	101	147
Quetta	Killa Abdullah	22	0	0	0	0	22
Quetta	Pishin	56	0	0	0	47	103
Quetta	Quetta	33	0	0	0	21	54
Quetta Total		111	0	0	0	68	179
Rakhshan	Chaghi	33	0	0	0	13	46
Rakhshan	Kharan	15	0	0	0	14	29
Rakhshan	Nushki	0	0	0	29	32	61
Rakhshan	Washuk	4	0	0	0	9	13
Rakhshan Total		52	0	0	29	68	149
Sibi	Dera Bugti	0	0	0	0	39	39
Sibi	Harnai	20	0	0	0	0	20
Sibi	Kohlu	0	0	0	0	2	2
Sibi	Sibi	13	0	0	0	10	23
Sibi	Ziarat	10	0	0	0	11	21
Sibi Total		43	0	0	0	62	105
Zhob	Killa Saifullah	21	0	0	0	86	107
Zhob	Sherani	9	0	0	1	14	24
Zhob	Zhob	70	0	0	5	3	78
Zhob Total		100	0	0	6	103	209
Overall		899	0	0	65	757	1721

ANNEX - M: PUNJAB - WATERCOURSE DATA SUBMISSION - SUMMARY

Punjab - Watercourse Data Submission - Summary							
Division	District	Completed	Under Progress				Overall
			1st Milestone	2nd Milestone	Work Order Issued	Work Order Pending	
Bahawalpur	Bahawalnagar	220	0	0	0	0	220
Bahawalpur	Bahawalpur	154	0	0	0	0	154
Bahawalpur	Rahim Yar Khan	331	0	0	0	0	331
Bahawalpur Total		705	0	0	0	0	705
Dera Ghazi Khan	Dera Ghazi Khan	118	0	0	0	0	118
Dera Ghazi Khan	Layyah	126	0	0	0	0	126
Dera Ghazi Khan	Muzaffargarh	133	0	0	0	0	133
Dera Ghazi Khan	Rajapur	119	0	0	0	0	119
Dera Ghazi Khan Total		496	0	0	0	0	496
Faisalabad	Chiniot	34	0	0	0	0	34
Faisalabad	Faisalabad	130	0	0	0	0	130
Faisalabad	Jhang	99	0	0	0	0	99
Faisalabad	Toba Tek Singh	124	0	0	0	0	124
Faisalabad Total		387	0	0	0	0	387
Gujranwala	Gujranwala	101	0	0	0	0	101
Gujranwala	Narowal	16	0	0	0	0	16
Gujranwala	Sialkot	84	0	0	0	0	84
Gujranwala Total		201	0	0	0	0	201
Gujrat	Gujrat	35	0	0	0	0	35
Gujrat	Hafizabad	85	0	0	0	0	85
Gujrat	Mandi Bahauddin	79	0	0	0	0	79
Gujrat Total		199	0	0	0	0	199
Lahore	Kasur	83	0	0	0	0	83
Lahore	Lahore	23	0	0	0	0	23
Lahore	Nankana Sahib	50	0	0	0	0	50
Lahore	Sheikhupura	99	0	0	0	0	99
Lahore Total		255	0	0	0	0	255
Multan	Khanewal	123	0	0	0	0	123
Multan	Lodhran	154	0	0	0	0	154
Multan	Multan	153	0	0	0	0	153
Multan	Vehari	132	0	0	0	0	132
Multan Total		562	0	0	0	0	562
Sahiwal	Okara	136	0	0	0	0	136
Sahiwal	Pakpattan	121	0	0	0	0	121
Sahiwal	Sahiwal	145	0	0	0	0	145
Sahiwal Total		402	0	0	0	0	402
Sargodha	Bhakkar	183	0	0	0	0	183
Sargodha	Khushab	80	0	0	0	0	80
Sargodha	Mianwali	146	0	0	0	0	146
Sargodha	Sargodha	146	0	0	0	0	146
Sargodha Total		555	0	0	0	0	555
Grand Total		3762	0	0	0	0	3762

ANNEX - N: PUNJAB – WATER STORAGE POND DATA SUBMISSION – SUMMARY

Punjab - WSP Data Submission - Summary					
Division	District	Completed	Under Progress		Overall
			TS Issued	TS Pending	
Bahawalpur	Bahawalnagar	51	0	0	51
Bahawalpur	Bahawalpur	42	0	0	42
Bahawalpur	Rahim Yar Khan	67	0	0	67
Bahawalpur Total		160	0	0	160
Dera Ghazi Khan	Dera Ghazi Khan	33	0	0	33
Dera Ghazi Khan	Layyah	18	0	0	18
Dera Ghazi Khan	Muzaffargarh	21	0	0	21
Dera Ghazi Khan	Rajanpur	8	0	0	8
Dera Ghazi Khan Total		80	0	0	80
Faisalabad	Chiniot	8	0	0	8
Faisalabad	Faisalabad	35	0	0	35
Faisalabad	Jhang	31	0	0	31
Faisalabad	Toba Tek Singh	55	0	0	55
Faisalabad Total		129	0	0	129
Gujranwala	Gujranwala	2	0	0	2
Gujranwala	Sialkot	4	0	0	4
Gujranwala Total		6	0	0	6
Gujrat	Gujrat	26	0	0	26
Gujrat	Hafizabad	13	0	0	13
Gujrat	Mandi Baha-Ud-Din	2	0	0	2
Gujrat Total		41	0	0	41
Khushab	Khushab	28	0	0	28
Khushab Total		28	0	0	28
Lahore	Kasur	7	0	0	7
Lahore	Lahore	2	0	0	2
Lahore	Nankana Sahib	3	0	0	3
Lahore	Sheikhupura	2	0	0	2
Lahore Total		14	0	0	14
Multan	Khanewal	22	0	0	22
Multan	Lodhran	14	0	0	14
Multan	Multan	17	0	0	17
Multan	Vehari	14	0	0	14
Multan Total		67	0	0	67
Rawalpindi	Attock	79	0	0	79
Rawalpindi	Chakwal	155	0	0	155
Rawalpindi	Jhelum	63	0	0	63
Rawalpindi	Rawalpindi	71	0	0	71
Rawalpindi Total		368	0	0	368
Sahiwal	Okara	19	0	0	19
Sahiwal	Pakpattan	15	0	0	15
Sahiwal	Sahiwal	5	0	0	5
Sahiwal Total		39	0	0	39
Sargodha	Bhakkar	19	0	0	19
Sargodha	Mianwali	3	0	0	3
Sargodha	Sargodha	35	0	0	35
Sargodha Total		57	0	0	57
Sahiwal Total		989	0	0	989

ANNEX - O: GB – WATERCOURSE DATA SUBMISSION – SUMMARY

GB - Watercourses Data Submission - Summary					
Division	District	Completed	Under Progress		Overall
			TS Issued	TS Pending	
Gilgit	Astore	44	0	0	44
Gilgit	Diamer	125	0	0	125
Gilgit	Ghizer	102	0	0	102
Gilgit	Gilgit	109	0	0	109
Gilgit	Hunza	35	0	0	35
Gilgit	Nagar	30	0	0	30
Gilgit Total		445	0	0	445
Skardu	Ghanche	113	0	0	113
Skardu	Kharmang	42	0	0	42
Skardu	Shigar	68	0	0	68
Skardu	Skardu	141	0	0	141
Skardu Total		364	0	0	364
Overall		809	0	0	809

ANNEX - P: GB – WATER STORAGE POND DATA SUBMISSION – SUMMARY

GB - WST Data Submission - Summary					
Division	District	Completed	Under Progress		Overall
			TS Issued	TS Pending	
Gilgit	Astore	19	0	0	19
Gilgit	Diamer	50	0	0	50
Gilgit	Ghizer	45	0	0	45
Gilgit	Gilgit	60	0	0	60
Gilgit	Hunza	12	0	0	12
Gilgit	Nagar	14	0	0	14
Gilgit Total		200	0	0	200
Skardu	Kharmang	24	0	0	24
Skardu	Shigar	49	0	0	49
Skardu	Skardu	55	0	0	55
Skardu Total		128	0	0	128
Overall		328	0	0	328